

# Attachment in Indonesia

The Mother-Child Relationship



in Context

Jolien Zevalkink





# **Attachment in Indonesia:**

## **The Mother-Child Relationship in Context**



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# **Attachment in Indonesia:**

## **The Mother-Child Relationship in Context**

een wetenschappelijke proeve  
op het gebied van de Sociale Wetenschappen

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# Chapter 1

## Introduction

“Much of developmental psychology, as it now exists, is the science of the strange behavior of children in strange situations with strange adults for the briefest possible periods of time” (Bronfenbrenner, 1979, pp. 18-19)

This citation of Bronfenbrenner has made a great impression on me and has motivated me to do developmental research in a different way than outlined above. The empirical data underlying this thesis comprise both observations in experimental settings and observations of normal, everyday behavior of parents and children at home over extended periods of time. From a methodological perspective, this thesis combines research methods and theory in developmental psychology with data collection methods from social anthropology. Ethnographic interviews and participant observations from anthropology have been used here in addition to research guided by attachment theory, which is primarily developmental in nature. Furthermore, the study includes the investigation of socioeconomic differences within the Indonesian setting.

This eclectic combination of aspects of anthropological, developmental, and sociological research strategies has been considered necessary for two main reasons. First is the issue of reliability and validity of developmental research in a non-western setting. By including a long period of adjusting to the research setting and intensive home observations the present research attempts to guard the ecological validity of the developmental instruments and theory. The second reason is related to the issue of generalization. Sociological theory and research made clear that large differences exist within the parenting context of socioeconomically different families. Therefore, the socioeconomic background has systematically been taken into account in order to allow for more distinct generalizations.

To be more specific, the present thesis focuses on the quality of the relationship between Indonesian mothers and their children and relates this quality to the parenting context of socioeconomically different families. In other words, it investigates the relation between the context of parenting, the quality of support parents provide their children, and the security of attachment a child derives from it. The central themes of this thesis will now be discussed in greater detail.

Attachment theory was developed by John Bowlby with the concept of attachment referring to the strong affectional bond that ties a child to its caregiver. Working as a psychoanalyst in the United Kingdom from 1928 onwards, Bowlby was struck by the devastating effects of sudden loss of beloved persons and long-term institutionalisation on child development (Bowlby, 1952). This experience prompted him to formulate two key assumptions.

The first key assumption states that the development of young children's

attachment relationship has biological roots: from birth onwards each child is genetically predisposed to attach itself to a primary caregiver (Bowlby, 1969). Bowlby posed the development of an attachment relationship to be extremely important for the mental health of the child. A secure attachment relationship between the child and its caregiver gives the child the opportunity to develop confidence in the caregiver's availability and to use the attachment figure as a secure base from which to explore the environment. The development of an insecure attachment relationship will render the child with feelings of insecurity, discomfort, and low confidence in its own abilities. Attachment security is assumed, and has indeed been found, to be a key aspect in the social and emotional development of children (e.g., Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969; Bretherton, 1985, 1995).

Although researchers initially criticized the assumption of the universality of attachment development (e.g., Lamb, Thompson, Gardner, & Charnov, 1985; Scheper-Hughes, 1992), it is now widely supported that from birth onwards the urge to attach oneself to a caregiver is prominent in all cultures (Van IJzendoorn, 1990). The present thesis investigates whether this assumption is also supported in the Indonesian caregiving context.

The second key assumption of attachment theory states that the quality of the attachment relationship between a caregiver and child depends upon the quality of care the caregiver provides to the child. In general, attachment research supports the assumption that a high quality of parenting as reflected in sensitive responding to the signals and needs of the child fosters a secure attachment relationship (Thompson, *in press*). Recent research in Japan, another Asian country, has confirmed the existence of a relation between sensitivity and attachment security for 14- and 24-month-olds (Vereijken, Riksen-Walraven, & Kondo-Ikemura, 1997). The present thesis examines whether this key assumption extends to Indonesia: is the quality of the attachment relationship related to the quality of parental support in Indonesian parent-child dyads?

In this thesis, the parent-child relationships is examined in relation to the Indonesian parenting context. Bowlby (1988) assumed that parenting behavior is genetically predisposed to some degree and ready to become sensitively attuned to the infant's signals. According to evolutionary ecologists and sociobiologists, individuals are programmed to invest resources in their offspring in order to ensure the survival and growth of each particular child (Charlesworth, 1988; Thompson, 1997). The allocation of personal resources, however, is finite. The extent to which parents are able or willing to "invest" in a particular child is not always sufficient for the promotion of the child's healthy social, emotional, and personality development (Thompson, 1997). In some instances, the pressure from the environment is so overwhelming that parents can barely provide their child with adequate support (Scheper-Hughes, 1992).

Belsky (1984) has identified three major domains of determinants that may encourage or impede the ability of parents to provide the child with adequate support: psychological resources of parents, characteristics of the child, and contextual sources of stress and support. These domains do not operate independently of one another. For instance, the influence of a child characteristic, such as irritability, on the quality of

maternal care is dependent upon the social support that the mother receives from others: when the mother receives social support infant irritability does not have to lead to an insecure attachment relationship (Crockenberg, 1981; Van den Boom, 1994).

In this thesis I focus primarily on one of Belsky's three determinants of the quality of parenting: the contextual sources of stress and support. An investigation of the broader context in which attachment development occurs may shed light on variations in the quality of care. The investigation of the influence of the parenting context and the culture-specificity of this pressure on the quality of parental support are relatively new issues in attachment research (e.g., Ainsworth, 1967, 1977; Harwood, Miller, & Irizarry, 1995; Van IJzendoorn & Kroonenberg, 1988).

For methodological reasons, variation in the contextual sources of stress and support was considered necessary in order to investigate whether variation in the parenting context was related to variation in the quality of care and attachment security. To ensure intracultural variation, the sample should be heterogeneous with families differing in characteristics of their parenting context (e.g., age, number of children, level of education). Within each culture, socioeconomic differences between families are a major source of contextual variation. Therefore, I examined the parenting context of families from two different socioeconomic status groups in Indonesia. This means that the present study includes an intracultural comparison. It is not aimed at a cross-cultural comparison. The issue of intracultural diversity is central if one wants to study human development in another culture (Harkness & Super, 1996). Intracultural comparison logically precedes a cross-cultural comparison. Additionally, the investigation of intracultural differences has certain policy-relevant advantages in that it can show the strengths and weaknesses of child care in each of the intracultural groups.

In order to safeguard the ecological validity of the methods and instruments, the present research has used both anthropological and psychological research methods. The application of theory and research methods developed in western countries raises questions about the reliability and validity of these methods in the less well-studied Indonesian culture. For instance, in attachment research, a methodological discussion centers around the validity of the methods and instruments used to assess attachment in different cultures (e.g., Harwood, Miller, & Irizarry, 1995; Miyake, Chen, & Campos, 1985; Takahashi, 1990). By including various research methods and different research settings the present project aims to assess the behavior of parents and children in a reliable and valid manner.

The following chapters will explore the complex interplay between the Indonesian parenting context, the quality of parental care, and attachment development. The purpose of the present chapter is threefold. First, it introduces two central concepts that are inevitable to a research project combining developmental psychology and social anthropology: culture and adaptation. Second, the main topics of this thesis are explained more fully. Third, the chapter discusses the selection of the setting and subjects, the relevance of the study, and an outline of the thesis.



## Culture and adaptation

The number of definitions of culture approaches the number of people who use the concept. The culture concept is used in everyday life, politics, biology, and the social sciences. In the social sciences, definitions and uses of the culture concept often relate to the theoretical and methodological background of the researchers. For instance, social anthropologists focus on patterns of social behavior by means of participant observation and ethnographic interviews. That is, by listening to people, watching them in natural settings, and asking questions during a series of friendly conversations into which the researcher slowly introduces elements of a topic (Spradley, 1979). Because a social anthropologist is focused on patterns of social behavior, he needs to differentiate social from cultural phenomena and might define the concept of culture as 'mental rules for acting and speaking shared by the members of a given society'. Actions are then regarded as social phenomena and shared mental rules as cultural phenomena (Harris, 1980).

Theoretically and methodologically, mainstream developmental psychology focuses on determining psychological processes in children. In considering the impact of culture, developmental psychologists often treat culture as an independent variable under the assumption that it molds behavior of individuals living together in a geophysical setting and social group. In a way, this assumption flirts with the notion of 'cultural determinism'. This notion holds four assumptions: "(1) that culture is an external environment uniformly perceived by and pressing upon all members of a given society, (2) that this cultural pressure determines a uniformity of behavior, including parental behavior (which largely defines the child's experience), (3) that therefore all "normal" members of a society must have the same basic personality structure ("national character"), and (4) that consequently culture can be said to mold personality" (Wallace, 1952, p.747).

Some researchers define culture as totally impregnated into all aspects of human life, in other words as everything people do and think (e.g., Geertz, 1973; Fogel, 1993). With this definition, however, the use of the concept becomes rather meaningless as an explanatory analytical tool. Every explanation will then become tautological. For instance, parents who laugh at their child's misbehavior do this because it is a cultural prescription, therefore it is their culture to laugh when the child misbehaves. Furthermore, it is only a next step to convert culture into an independent ontological entity subject to its own laws of development or what Bidney (1967) called a 'culturalistic fallacy'. This is illustrated by a remark like 'Our culture tells us to obey elderly persons' or 'Since our cultures differ, we can never understand each other'. The reification of the culture concept is just as dangerous for scientific development as the opposite: a 'naturalistic fallacy' which consists of the attempt to 'reduce' cultural phenomena to the level of the organic and the psychological (Bidney, 1967). In this light, remarks can be placed like "Carnival is a regulated outburst of sentiments against

the establishment” or “Males in muslim societies fear to be seduced by women and therefore do not allow them to expose body parts in public”.

The culture concept can also be defined as a symbolic system of values, norms and ideas. Kuper (1996), a social anthropologist, identified two grave analytic dangers in defining culture as an aggregate of ideas in the minds of individuals. First, by isolating this idealist aspect of social life and calling it culture other explanatory social and historical aspects are not taken into consideration. Second, the use of culture in this way suggests that culture is actually the main thing that determines behavior. In other words, the culture and personality explanation is resurged. Such a definition also implies that persons from different cultures will not understand each other because they think in different ways and have different symbolic systems. It forgets that there are similarities as well as differences in the way people perceive and behave within and between ‘cultural groups’.

In general, the main problem in developmental psychology and anthropology is that culture is not defined clearly. The treatment of culture as an independent variable without making its boundaries clear may then result in either unwillingly being drawn into the culture and personality debate by including too many aspects. Or it may result in inadvertently treating culture as a dustbin for the convenient disposal of unexplained residual variance.

Although it is hard to define the culture concept in a clear, consistent, and workable manner, it seemed better to explicate its meaning in the present thesis. Here, the concept of culture is used in two ways and therefore also defined in two ways. First, the concept of culture is used in a general and purely descriptive (i.e., non-analytical) sense and then defined as a group of people who share the same ethnic background. An investigation of differences within an ethnic group is then called an intracultural comparison. Second, the culture concept is analytically used in a restricted sense and then conceptualized as the goals, aspirations, and guidelines of individual parents with regard to parenting. The second conceptualization incorporates the existence of individual differences and allows separate analyses of what parents say and what they do. It is restricted because it focuses on individual parents and shows that the relation between ‘culture’ and goals, aspirations, and guidelines of individual parents still needs to be examined before stating something about the parenting ‘culture’ of the group.

Developmental psychologists drawing on behavioral or evolutionary ecology often use the concept of adaptation to refer to the process of adjustment between parents, children, and their environment. The concept of adaptation deserves some attention in the present thesis because it is closely related to assumptions about the parenting context, the quality of maternal support, and attachment security. Similar to the culture concept, the concept of adaptation is also defined in many ways dependent on the theoretical and methodological background of the researchers.

A rough distinction can be made between researchers that approach the concept of adaptation from the perspective of an individual and researchers that approach it from the perspective of the group. An individualistic perspective points to a child and its

caregiver adapting to their circumstances. Attachment patterns can be viewed as contextually-sensitive, biologically-based adaptations of the child to different styles of parental care and parental circumstances (Thompson, 1997). Parental care is also adapted to its circumstances. Caregivers may be preprogrammed to invest resources in their offspring (Bowlby, 1988), but proximal influences and characteristics of the broader context can either enhance or impair this investment process (Belsky & Isabella, 1988; Thompson, 1997). According to Thompson (1997), the adaptation of the caregiver affects the child's adaptational process:

"A parent who cannot or will not provide adequate nurturance, owing to scarce environmental resources, exhaustion, or the allocation of parental resources to other activities or offspring, provides the child with information that is critical to determining how to improve her or his own chances of survival, either by seeking more strenuously to obtain needed investment from the parent, or by going elsewhere (e.g., to other kin), or in other ways (e.g., accelerated behavioral maturation or altered behavioral strategies) (p. 202)."

This individual perspective on adaptation between caregiver and child is adhered to by many developmental psychologists and can also be investigated in terms of constructs like reciprocity, synchrony, or mutuality.

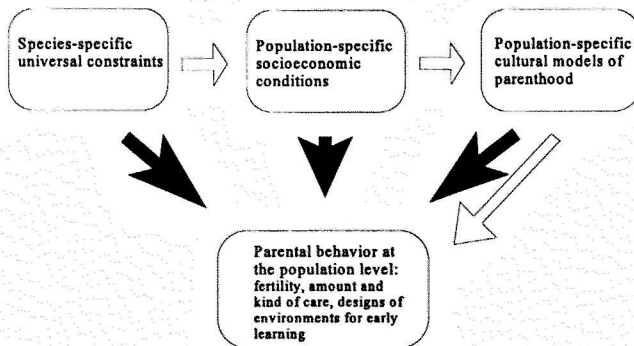
A group perspective on human adaptation points to the human species adapting to their particular environment or ecological niche. In developmental psychology, general theories on this level formulate developmental stages and processes that are supposed to be applicable to all humans (e.g., Bowlby, 1969; Erikson, 1963). Researchers inspired by anthropology have argued that there is considerable variation in the adaptive processes of groups. Adaptive processes at this level of investigation are, for instance, reproduction, communication, and social regulation. Across groups, these processes are assumed to be highly variable in their pattern and organization due to differences in normative models (culturally prescribed scripts) and social organizations (e.g., families, communities) (LeVine et al., 1994).

With regard to reproduction, for example, in one society, women marry at a young age and bear a child every two years until menopause whereas women in another society marry relatively late and have only two or three children. Belsky, Steinberg, and Draper (1991) have related the reproduction process to the stressfulness of circumstances surrounding parenting. They distinguished two prototypical reproductive strategies: "One is characterized, in childhood, by a stressful rearing environment and the development of insecure attachments to parents and subsequent behavior problems; in adolescence by early pubertal development and precocious sexuality; and, in adulthood, by unstable pair bonds and limited investment in child rearing, whereas the other is characterized by the opposite" (p. 647). A longitudinal study by Chasiotis and his colleagues (1997) confirmed the earlier onset of pubertal development for children under more stressful parenting circumstances.

LeVine and colleagues (1994) have presented a scheme that intends to explain

the behavior of parents at this general level<sup>1</sup> (Figure 1-1). The three boxes at the upper part of the scheme represent three dimensions of human development that each contain their own explanatory model of parental behavior: biopsychological, socioeconomic, and cultural. The arrows indicate four sets of theoretical assumptions. The first assumption is related to the biopsychological dimension and consists of a biopsychological model that assumes the organic equipment to provide the primary structure and meaning to parenthood everywhere. Much of developmental psychological research is based on this model. The second assumption is related to the socioeconomic dimension of human development. Its 'economic utility' model holds the assumption that reproductive and parental behavior reflect the socioeconomic conditions of childbearing and family life. In other words, parents allocate resources to children in response to economic incentives. Sociologists and economic anthropologists often adhere to this model. The third assumption is associated with the cultural dimension that

**Figure 1-1**  
**Analyzing human parental behavior at the population level**  
 (Source: LeVine, R.A. et al., 1994, p.17)



<sup>1</sup> LeVine and his colleagues (1994) refer to this level as the 'population' level. They define populations "as interactional networks within which mating and other communicative processes tend to be concentrated" (p. 12). I have, however, not used this term because it has the connotation of referring to the entire human 'population'. The definition shows that it is intended to refer only to specific populations living in specific circumstances. Therefore, I chose the word 'group' that has a less general connotation and refers to people living in relatively similar circumstances.

tries to explain parental behavior by means of a semiotic model<sup>2</sup>. This model assumes that parents are influenced primarily by conventionalized images of what is and what ought to be appropriate behavior in the domains of reproduction and child care (LeVine et al., 1994, p. 19). The fourth assumption is captured by the white arrows in the scheme. The white arrows represent the 'Cultural Mediation' model which assumes that only by combining the three dimensions of human development parental behavior can be explained adequately.

Both perspectives on adaptation are inherent in a study that combines research focused on individual differences in the quality of the mother-child relationship with the investigation of intracultural comparisons focused on group differences. LeVine's scheme has been presented in some detail because it shows the existence of several explanatory models for parental behavior at a group level. The distinction between the individual and group perspective on adaptation may be useful in clarifying the different analytic levels of approaching parental behavior. For instance, the psychological data in the empirical chapters mostly represent the individual perspective, but parental behavior is sometimes explained with reference to the dimensions at the group level in the discussion part of these chapters.

### The Parent-Child Relationship in Context

The parenting context is the first of the three main topics of the thesis to be explained more fully. First, it is necessary to clarify the meaning of context as best as possible because, similar to the concepts of culture and adaptation, its definition can range from all-encompassing to an empty construct dependent on the methodological and theoretical approach of the researcher. In the present thesis, context is generally used to denote measurable aspects of the child rearing environment that may be related to parental and child behavior. Its primary use, therefore, is that it incorporates the various measures of the child rearing environment into one concept. In this section, a conceptual framework of the parenting context is presented that shows what is --and what is not-- included in the concept of context.

Attachment theory began as a theory in which contextual variation was deemed important (e.g., Ainsworth, 1967). However, until now, systematic research into this domain has not been very popular. It has been recognized that each context can provide specific sources of stress and support for the parents that will affect the supportive quality they are able to provide for their children (e.g., Belsky & Isabella, 1988; Wachs, 1991). But research including contextual variation has been rather limited in scope: it either focused on just a few environmental factors as independent variables or on a large

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<sup>2</sup> Semiotic refers to the relation between signs or symbols and what they signify or denote. It has a distinct linguistic origin. In the field of psychological anthropology, it is used to refer to the investigation of the meaning of symbols and ideas of a particular 'cultural' group.

number of undifferentiated variables united into global constructs like culture or socioeconomic class. In 1979, Bronfenbrenner already observed that descriptions of contexts often did not go further than “family size, ordinal position, single- versus two-parent households, home care versus day care, parents versus peers, and --perhaps the most frequent-- variation by social class or ethnic background” (p. 17). Ten years later, Belsky and Isabella, 1988, add to this that in case of multiple contextual measures variables are virtually “thrown at” a developmental variable, such as attachment security, using multivariate data analytic techniques without a conceptual framework to guide this exercise. From this, it can be concluded that a conceptual model including several contextual characteristics might be preferred instead of single variables or a pile of variables without a conceptual framework.

Various models have been proposed that emphasize contextual determinants of parenting and child development (e.g., Belsky, 1984; Bronfenbrenner, 1979; Riksen-Walraven, 1983; Super & Harkness, 1986; Whiting & Whiting, 1975). For instance, Belsky (1984) has proposed a process model of factors that determine how parents behave towards their children. In his conception, the most important determinants of parenting are the developmental history of the parent, the parent’s personality, marital relationship, work, social network, and child characteristics. Belsky stresses the psychological processes behind the determinants. In line with this model is, for instance, research about the effects of marital satisfaction and perceived social network support on the quality of parental behavior (e.g., Simons, Lorenz, Wu, & Conger, 1993). In the present thesis, the only contextual data that relate to psychological processes are the individual aspirations of the parent. Most of the remaining contextual variables of the present study are only indirectly related to psychological processes and therefore do not fit this model.

An anthropologically oriented model of the ‘child-in-context’ is the developmental niche: a theoretical framework for studying the cultural regulation of the micro-environment of the child (Super & Harkness, 1986). One of the three subsystems of the developmental niche is the physical and social settings in which the child lives (e.g., Whiting & Edwards, 1988; Whiting & Whiting, 1975). The other two subsystems are the culturally regulated customs of child care and child rearing and the psychology of the caretakers. The framework tries to integrate findings from psychology and anthropology in order to understand the mechanisms involved in the cultural regulation of child development. Developmental psychology is used to delineate the topics under investigation and to understand the psychological processes behind child development and the caretaker’s behavior. Anthropology is used to gather data about the physical and social settings and the customs of child care and child rearing. In the present study, the anthropological data are about individual parents and children and not about culturally regulated customs at the group level. The present thesis only takes one of the three subsystems, the physical and social settings, into account and can therefore not use the developmental niche as its framework.

Bronfenbrenner (1979, 1986) has proposed a model about the relation between contexts surrounding child development. The child and its biological heritage are placed



at the center of the model. Surrounding the child, the model envisages context as a set of three concentric rings, each ring influencing the rings inside it. In Bronfenbrenner's model, these rings are labeled the micro-, meso-, and exosystem (Bronfenbrenner, 1979). Freely translated by Sroufe, Cooper and DeHart (1996), the first ring surrounding the child has been defined as the immediate environment that contains all the settings, the persons, and the physical objects with which the child has direct contact. They labeled the second ring the social and economic context. This context consists of social and economic features of the family network that can not directly be observed in the immediate environment. The third ring was labeled the cultural context and was defined as beliefs, values, and guidelines for child rearing behavior that family members tend to share with others in the (sub)cultural setting.

In the present thesis, Bronfenbrenner's ecological framework is used as a way of structuring our thinking about context in relation to child development. This model separates different contexts meaningfully and enables the allocation of anthropological and psychological variables to different contexts. The form of the model and the meaning of the different contexts have, however, been adapted in the present study. A major adaptation has been to additionally identify domains for the grouping of the contextual variables. Five domains have been identified that encompass relevant variables that might influence the quality of parenting: family structure, education, wealth, health, and residential mobility. Bronfenbrenner's adapted model can be visualised as a round pie consisting of three concentric contexts, each cut in five pieces representing the five domains (see Figure 4-1 in Chapter 4).

The meaning of the contexts differs from the original 'sociological' formulation of the wider contexts in that it is more focused on an individualistic perspective on adaptation in line with the psychological data. This means, for instance, that the cultural context is used in a much more restricted sense than the way in which Bronfenbrenner has conceptualized the exosystem and Sroufe and colleagues have defined the cultural context. The essential adaptation of the ecological model has been to operationalize it in order to make it fit the present contextual variables and the conceptual framework of attachment theory.

### Attachment Security and the Quality of Parental Care

The second main topic of the thesis is attachment security. Attachment security refers to the ability of a child to use the caregiver as a safe base for exploring the environment. A child who has confidence in the attachment figure's availability will feel more free to explore the environment than a child who lacks such confidence. The balance between a child's exploratory and contact maintaining behavior is influenced by contextual variants such as setting, familiarization, and preceding events and by the child's mood, physical condition, and developmental level. Despite these variants, the child builds up a solid representation of the attachment figure's general availability and responsiveness in the first years of life (Sroufe & Waters, 1977). The child adapts to its

caregiver and to stable features of its environment.

It is not surprising that considerable interindividual differences exist in the level of security that children experience. At the far end of the security dimension are children who feel insecure with regard to the availability of their attachment figure. Ainsworth and her colleagues (1978) have identified two qualitative different types of insecure children: insecure-avoidant children and insecure-resistant children. These children have not developed a stable balance between using the caregiver as a secure base and freely exploring the environment. A child with an insecure-avoidant attachment pattern avoids the caregiver in times of emotional distress and relies on exploring the environment whereas an insecure-resistant attached child clings to the caregiver and simultaneously shows angry resistance to the caregiver while in distress. Main and Solomon (1986) furthermore identified a third insecure attachment pattern: insecure-disorganized/disoriented. These children have not been able to develop a coherent strategy in using their attachment figure as a source of security. The present thesis will not only pay attention to the security/insecurity dimension, but also focus on the antecedents of different types of insecurity (e.g., Cassidy & Berlin, 1994).

The quality of parental support is the third and final main topic of the present thesis to be discussed more fully. In attachment theory, attachment security is assumed to relate to the caregiver's sensitive responsiveness (Ainsworth et al., 1978). Ainsworth's sensitivity construct includes the mother's ability to perceive the signals and communications implicit in the child's behavior, to interpret them accurately, to respond appropriately, and to respond promptly (Ainsworth, Bell, & Stayton, 1974). The sensitivity construct contains both attitudinal and behavioral components and can therefore be considered multidimensional (see for a recent review of the sensitivity construct De Wolff, 1996). De Wolff (1996) has shown the concept of sensitivity to be ambiguously used and described in attachment research and theory. Furthermore, the review reveals that concepts containing sensitivity are closely related to the 'emotional support' the caregiver provides for its child (De Wolff, 1996, p. 53).

In the present thesis, the construct of the quality of maternal support was used. This construct embraces a number of aspects of parental behavior that have been shown to be positively related to children's development during the pre-school period (cfr. Erickson, Sroufe & Egeland, 1985; Erikson, 1963; Riksen-Walraven, Meij, Hubbard, & Zevalkink, 1996). Adequate support implies, for example, the provision of adequate emotional support, showing respect for the child's autonomy, the absence of rejection or hostility, adequate structuring of situations and the setting of firm and consistent limits, and the provision of clear, well-timed, and adequate instructions and information. Pre-school children have been found to demonstrate fewer behavioral problems when caregivers provide this kind of high quality support (Erickson et al., 1985). For reasons of clarity, this thesis only uses the concept of sensitive responsiveness in relation to a qualitative measurement of the caregiver's emotional and supportive behavior towards the child in the home with the instrument Ainsworth and her colleagues (1974) had developed for that purpose.



## Why, When, and Who in Indonesian?

This section reveals why Indonesia was selected, when the research took place, and who constituted the target group of the study. There are two practical reasons why Indonesia --a former Dutch colony in South East Asia-- was selected as the research site. First, much information is available about Indonesia in The Netherlands in both classical as well as present-day writings and government statistics. The next chapter will provide the reader with general information about the Indonesian research setting. Second, the existence of an exchange program between the Padjadjaran University in Bandung, Indonesia, and the University in Nijmegen, The Netherlands, made it possible to arrange the necessary permits for a practical training as a MA student and a PhD research project. The formal PhD research was conducted in the period between January 1990 and July 1992. The practical training took place from February till December 1987.

The targets of our study were mothers and their 0-6 year old children living in different socioeconomic circumstances. Families with a low socioeconomic status and families with a low-middle economic status were included in the present study with both groups of families living in two different neighborhoods or communities. In our sample, the primary caregivers were the mothers which is a common situation for Indonesian families (e.g., Adimihardja & Utja, 1991). Observations of the child with other caregivers like the father were not systematically included in the research project because of the haphazardness of the frequency of time fathers spent with the child. Attachment security was assessed in a subsample of 12-30 month old children (see Chapter 7). As noted before, attachment security is a core variable in the social and emotional development of children. Initially, the present research project aimed to investigate the social and emotional development of 0-6 year old children. Due to circumstances, assessments of the social and emotional development of the 36-72 month old children are not yet available. The quality of maternal support and contextual circumstances are, however, assessed for the total sample and reported in this thesis.

## Outline of the thesis

After having explicated some basic conceptualizations surrounding the study of parent-child relationships in context, I turn to the present study of parent-child relationships in Indonesia. Though the combination of anthropological and psychological research techniques has been a fact from the start of the research project, the reporting of research material in the following chapters has sometimes been more anthropological and sometimes straight psychological. A truly interdisciplinary reporting is difficult for three reasons: one of them theoretical and the other two more practical in character. First, the main theoretical problem in interdisciplinary reporting is that it touches upon different explanatory models of parental behavior and child development. Each discipline considers other factors to be important. An

interdisciplinary presentation of all these factors and approaches into a theoretical scheme is a task considered too large for the present research project. Second, a practical reason why interdisciplinary reporting is difficult is that such a report needs a lot of explaining of concepts and constructs from both disciplines. Third, several of the chapters are written as articles to be submitted to journals and, in general, editors and readers of these journals are from one field or the other and not willing or able to see or to appreciate the extra dimension put forth by the other approach without a long explanation.

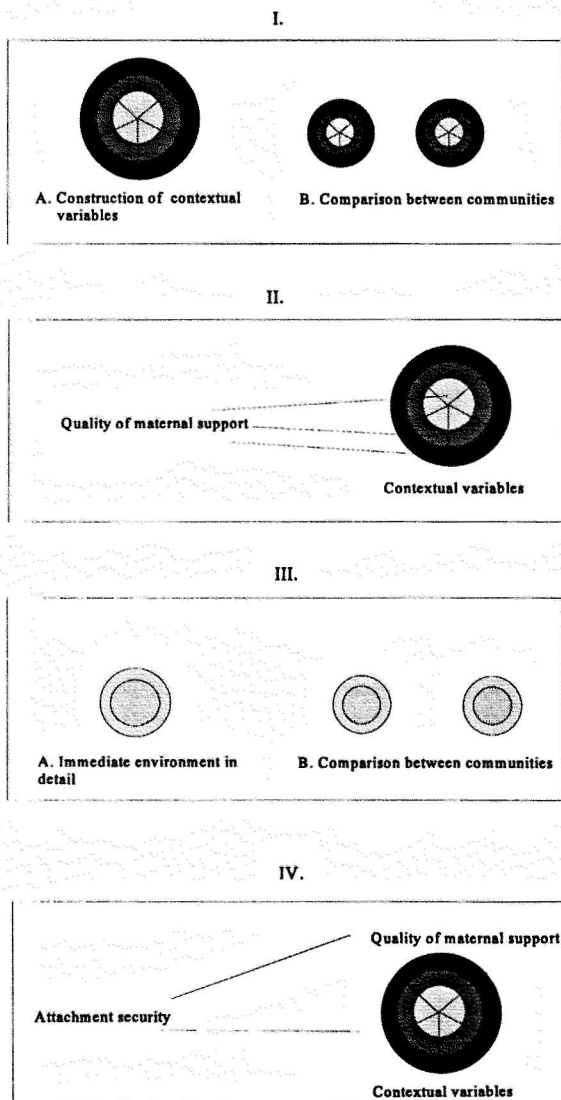
The thesis contains an introductory part, an empirical part, and a concluding section. The introductory part provides ethnographic information about the Indonesian research setting and methodological information about the data gathering process. The empirical part contains four chapters and four interludes. The concluding section of this thesis presents the main conclusions and an overall discussion of the research topic and project. The structure of the empirical part needs some additional clarification.

The empirical part starts with a broad focus on the parenting context and narrows down to the relation between the social and emotional development of children, the quality of parental support, and contextual characteristics. An outline of the four chapters is depicted in Figure 1-2. In Figure 1-2, the topics of the chapters are outlined with the use of the adapted version of Bronfenbrenner's ecological model of the context of parenting and child development. The first empirical chapter (Chapter 4) describes the parenting context and compares the parenting context in two socio-economically different communities. The second empirical chapter (Chapter 5) relates characteristics of the parenting context to the quality of mother's supportive behavior towards her child. In the third chapter of this section (Chapter 6), the immediate environment is examined in more detail (i.e., the quality of the home and the quality of maternal support) and a comparison of the immediate environment of the two communities is included. The fourth empirical chapter (Chapter 7) examines the relation between the attachment security of a child, the quality of maternal support, and the context of parenting.

In the empirical part, each of the chapters is followed by an interlude that contains several vignettes. The purpose of these interludes is to clarify the main focus of each empirical chapter for readers who are unacquainted with the specific topics. Furthermore, the interludes provide an opportunity to present case-material containing both anthropological and psychological research findings. The presentation of case-material is by definition atypical because each case is unique in its own special way. It, however, provides rich details of the situation in which a particular Indonesian child and its family live and is therefore very useful as a means of illustration. The vignettes are chosen in such a way that they reflect more or less contrasting situations. The richness of the vignettes will show the reader that there is no easy black and white story to tell and that each child's situation contains its own specific advantages and disadvantages from a developmental perspective. Also, one child might use other possibilities and experience other difficulties compared to another child in the same

environment. In reading the present thesis, it has to be at the back of our thoughts that a two-way interaction exists between the child and its environment with the environment influencing the child's development but the child also influencing its environment.

Figure 1-2  
Outline of the empirical section



## Chapter 2

### Introducing the Indonesian Setting: Ethnography of the Sundanese Parenting Context

Indonesia is a densely populated country undergoing a rapid industrial transformation accompanied by economic and social changes (e.g., Braadbaart, 1994; Hill, 1994). Compared to twenty years ago, an average Indonesian family can spend more money and can send their children to school more easily (Manning, 1994). The parenting context is not untouched by these changes. In this chapter, I present a bird's eye view on Indonesia in order to provide an ethnographic background for parenting and children's development in Indonesia. Regionally, I will pay special attention to the western part of Java where the present research was conducted. This chapter is divided into seven sections. First, information is provided about population statistics in order to understand the pressure on parents to control reproduction of offspring. Second, general living conditions are depicted in a section about a typical Indonesian neighborhood: the *kampung*. Third, the section on ethnicity and religion makes clear how culturally complex Indonesia is. The fourth section concerns itself with the educational system. From this, it might be concluded that the present-day parents had less access to education than their children have today. Fifth, the system of primary health care is described extensively because it contains government activities primarily directed at the well-being of mothers and their young children. The sixth section introduces a metropole in the center of West Java: Bandung, the research site of the present study. Finally, the seventh section deals with customs, values, and beliefs of the Sundanese being the ethnic group central in this study.

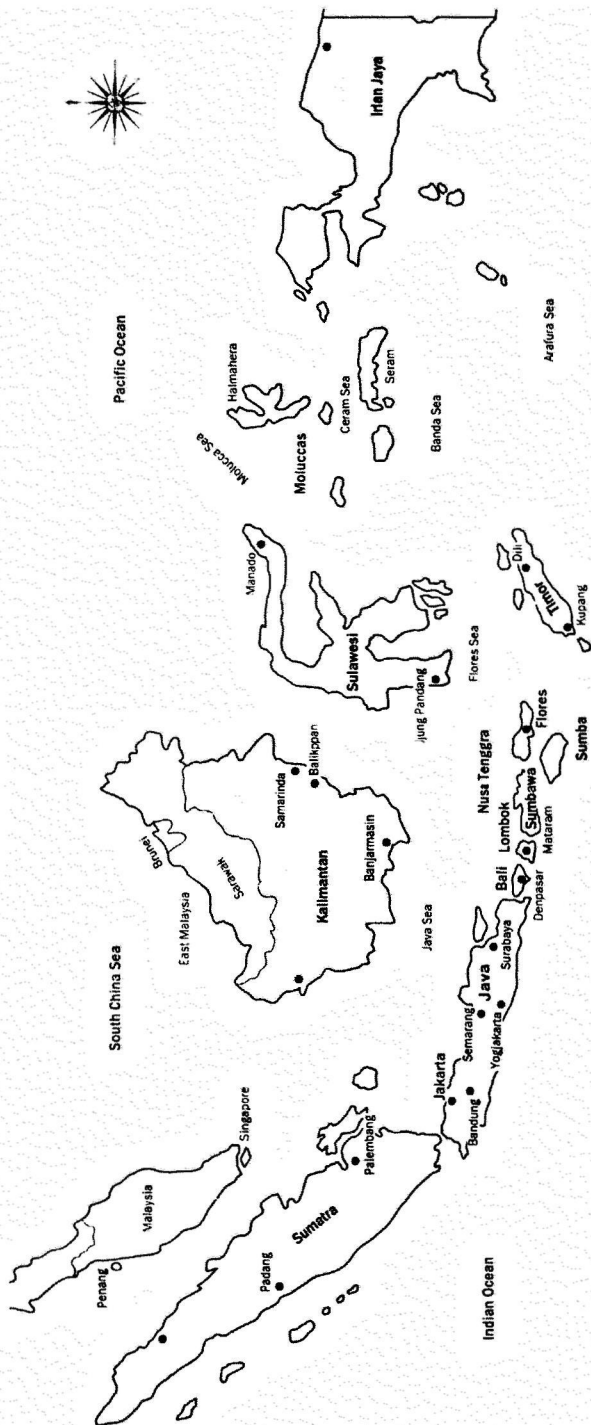
#### Population

In 1990, Indonesia --with a population of about 179 million-- was the fourth most populated country in the world, after China, India, and the United States of America (Hull, 1991). Indonesia's population is unevenly distributed over its six major islands or island groups: Sumatera, Java, Nusa Tenggara, Kalimantan, Sulawesi, and The Moluccan-Irian Jaya (see map). The island of Java accounts for less than 7 percent of the total land area but holds about 60% of the total population. The overall population density of West Java province, not counting the Jakarta region, was 758 persons per square kilometer in 1991. In the Jakarta region, the population density was 16,455 persons per square kilometer, whereas the population density for Indonesia in general was 97 (Biro Pusat Statistik, 1991b).<sup>1</sup>

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<sup>1</sup> To compare: the population density of, for instance, The Netherlands --a densely populated country-- is 455 persons and that of its capital, Amsterdam, 4,478 persons per square kilometer in 1994 (Wolters-Noordhoff, 1996).

Map of Indonesia



Government population statistics provide information on overall reproduction patterns and public health in Indonesia. A first important indicator is the population growth rate. The growth rate shows the pace at which the population grows every year in terms of a percentage of the base population in the preceding year. In the past decennia, the average annual growth rate has been dropping in Indonesia from 2.32% between 1971-1980 to 1.97% between 1981-1990 (Haskoning-Lidesco, 1988; Biro Pusat Statistik, 1991a). Compared to most European countries with a growth rate of almost zero (Wolters, 1994), the growth rate in Indonesia is still relatively high. With a population of 179 million people, it means an addition of 3.5 million people each year. A second indicator is the total fertility rate that covers the average number of children each woman between 15-49 years of age had given birth to during her lifetime. In Indonesia, the total fertility rate was 3.02 in 1991. Differences in fertility rate exist between regions, with West Java having a higher fertility rate (3.37) compared to the rest of Java (2.49) and Bali (2.22). In West Java, family planning has been adopted comparatively late (Haskoning-Lidesco, 1988). In Indonesia, the total fertility rate has declined steadily since the late 1960s from 5.6 children to 3 children around 1990 (Central Bureau of Statistics, 1991).

The life expectancy rate and the infant mortality rate are two other indicators of population growth that, in addition, indicate the general health status of a country's population. Life expectancy rate is an estimate of the number of years a person is expected to live and is based on age specific death rate for a given year. Life expectancy at birth was 58.19 years in the period of 1986-1990 and is expected to rise to 62.12 years between 1991-1995 (Biro Pusat Statistik, 1991b). The infant mortality rate (IMR) is the number of deaths to infants under one year of age per 1000 live births in a given year. The infant mortality rate has decreased from 141 infants per thousand live births in 1971 to 108 infants in 1980 (Haskoning-Lidesco, 1988) and to 56 in 1993 (Wolters-Noordhof, 1996).

A person visiting Indonesia for the first time will certainly notice the abundance of children on their way to school in their uniforms, playing in the streets, watching an exciting scene (sometimes a tourist), or working as a vendor. With about 36% of the population under 15 years of age, Indonesia has an unbalanced age pyramid. The high growth rate and the declining infant mortality rate contribute to the unbalanced age pyramid. The problem with an unbalanced age pyramid is that a large group of the population is unproductive in economic terms. In other words, many persons are dependent on the productivity of a comparatively small number of persons in their productive ages (Biro Pusat Statistik, 1991b). In general, however, the conclusion can be drawn that the quantitative changes in the Indonesian population over the past decennia open the way to qualitative improvements in the general life circumstances.

### **The Kampung**

Population density is most noteworthy in kampungs where 70-90 % of the urban





Picture 1  
A mobile vendor in the kampung



Picture 2  
Warung with snacks, small household items, and unprepared food

population lives (Bijlmer, 1987). The *kampung* is a quintessentially Indonesian phenomenon. Guinness (1986, p.7) has described the urban *kampung* as a residential area, situated behind a facade of big houses located at the streetside, characterized by a large proportion of substandard housing among a maze of narrow winding pedestrian pathways, and occupied by a densely settled population. *Kampungs* have a minimum of urban facilities such as electricity, water supply, garbage collection, drainage, and sewerage. Efforts to improve conditions have to be financed and executed locally by collecting fees and labor from residents. Because of the increasing population density of the past decades an urban *kampung* resembles a squatter area, but differs from a squatter settlement in two important respects. First, it is usually formed incrementally and not by mass invasion (Williams, 1975). Second, most *kampung* residents possess legal title to the land they inhabit (Guinness, 1986; Guthrie, 1970; Stone & Marsella, 1968).

A *kampung* is not just a place of residence for people working elsewhere. For many people, it is also a place of work (Bijlmer, 1987). Mobile vendors peddle wares such as vegetables, ice-cream, soup, and toys. In general, there is a coming and going of peddlers during the entire day. Small shops called *warung* are abundant in the *kampung* and very diverse in their scale and produce. In some of the *warung* you can buy snacks and cooked food prepared by the owner, others sell small household items (e.g., pencils, a bar of soap), or unprepared food such as vegetables, fish, rice, and soy-bean products. *Warung* are generally run by women. Although few women can make all types of snacks (e.g., fried bananas, rice cakes), every woman has the skill to make some of them. In case of economic emergency, a family can turn to food vending in order to make a living (Dewey, 1962).

Life starts early in the *kampung*, with peddlers selling rice porridge for breakfast, men going to the mosque to pray, and women making a fire to boil some water for tea and/or bath around five-six o'clock in the morning. After having finished the laundry, women start to prepare food that will be served until the evening. Leftovers are fried for breakfast the next morning. In the afternoon, most of the work is done for the women working at home. This is a time when they can rest, go to visit a relative, watch their children play, or chat with their neighbors. The working hours of men vary widely dependent on their jobs. Some come home at two o'clock in the afternoon (e.g., civil servants), some have two jobs with one job in the morning (e.g., school teacher) and one job in the evening (e.g., market salesman), some work till six o'clock, and some work in other cities and only come home in the weekends. In the evening, people go to bed around nine o'clock after the last prayer to rise again in the early morning.

### Etnicity and religion

Indonesia encompasses 300 ethnic groups with 250 distinct languages and many different religions. The ethnic groups are not evenly distributed in geographical and quantitative terms. Table 2-1 shows the eight largest Indonesian ethnic groups with the



Javanese being the largest (Ekadjati, 1984). It is not surprising that the Javanese dominate the political scene.

Table 2-1  
Distributions of major ethnic groups in Indonesia, 1979  
(source: Ekadjati, 1984)

Ethnic group	Percentage of total population
Javanese	45.0
Sundanese	14.2
Madurese	7.5
Coastal Malay	7.5
Makasar-Buganese	4.2
Minangkabau	3.3
Balinese	2.0
Batak	1.7
Total	85.4

In order to unite the country's cultural complexity, Indonesia adopted a national motto: Unity in Diversity (*Bhinneka Tunggal Ika*). The meaning of this motto is being taught in schools and explained by large placards in every government building. After its independence, the Indonesian government proclaimed a national language that was not related to any ethnic group in order to overcome ethnic differences (before independence, Dutch was the national language). The Indonesian national language (i.e., *Bahasa Indonesia*) is taught in school and used in public places. At home, about 90% of the people still speak their own ethnic language (Haskoning-Lidesco, 1988). For children entering kindergarten or primary school, this is often a hindrance because teachers will only speak Bahasa Indonesia.

There are many religions in Indonesia, but Islam has by far the most adherents. Politically, however, Islam has not been adopted as the national religion. The large majority of Indonesians living in West Java are muslim (Harsojo, 1983). Although not all Indonesian muslims adhere to the islamic prescriptions, the influence of this religion on the patterning of daily life should not be underestimated. Every day in every part of Indonesia, people are reminded to pray five times a day. Many children attend evening classes where they learn to recite the Koran. On Friday, most of the men go to the mosque for prayer.

## Education

The educational system in Indonesia has grown considerably since Indonesia's independence in 1945. From Table 2-2 it becomes clear that most of the primary schools

**Table 2-2**  
**Distribution of primary schools in West Java, 1985**  
 (source: Haskoning-Lidesco, 1988)

Type of primary school	Percentage of total schools
National Government	38.1
Regional Government (INPRES)	45.8
Private Madrasah (islam)	14.5
Other private schools (e.g., Catholic)	1.6
Total	98.0

Note. INPRES primary schools are under responsibility of the regional governments and funded by the national government.

in West Java are government schools; its foundation and finance being either nationally or regionally coordinated. The Madrasah are religious private primary schools and constitute a large proportion of the private schools. The Madrasah are mainly located in the rural areas. On average, there are about 35 pupils in each classroom (Haskoning-Lidesco, 1988).

For the primary school, more children enrolled in the past decennia with the enrollment ratio improving from 85% in 1980 to 94% of the children enrolled five years later (Haskoning-Lidesco, 1988). Differences between the enrollment ratios of boys and girls were small among primary school age children in all provinces of Indonesia (Oey-Gardiner, 1991). Indonesian girls have greater access to primary education than their peers in other countries at similar levels of economic development (Table 2-3).

Although enrollment in primary education is almost universal in Indonesia, there is still a large percentage that drop out of school after a few years of education. Of the children of 10 years and older, 54.5% had dropped out of primary school in 1985. Some reasons for dropping out of primary school are a lack of encouragement from their parents, lack of finance, and pressing household chores (Haskoning-Lidesco, 1988).

Secondary education is divided into two phases of three years each. Of 13-15 year old children, approximately 35% enrolled in the lower secondary school or SMP in 1985 (Haskoning-Lidesco, 1988). The upper secondary schools were attended by about 20% of the 16-18 year olds. There are about eleven types of upper secondary schools of which the general upper secondary school or SMA is attended by 64% of all secondary school pupils. Three other major types of upper secondary schools are the Technical High School (STM), the Economical and Administrative High School (SMEA), and the Teachers High School (SPG) (Haskoning-Lidesco, 1988). As evident in Table 2-3, the male-female difference is much larger for the enrollment in secondary education. This is primarily due to school availability with secondary schools often being at a larger distance from home than primary schools. It appears that parents are more willing to allow sons to travel long distances to attend school than daughters. If

secondary schools are nearby, enrollment ratios do not differ for boys and girls (Oey-Gardiner, 1991).

Table 2-3

Number of females per 100 males in schools by level of education in some low income countries, 1986

(source: Oey-Gardiner, 1991)

Country	Primary school	Secondary school
Afghanistan	50	49
Bangladesh	66	45
Indonesia	93	73
Pakistan	55	38
Sudan	68	76

The major aims of the Indonesian education system have been to create a literate population and to instill a sense of national identity. The results show the education system to have been very successful with regard to these aims. The literacy rate has risen: even children dropping out from primary schools have learned how to read and write. Furthermore, many Indonesians are able to speak Bahasa Indonesia, the national language, and have learned about the national heritage. At school, all Indonesians wear costumes and attend to national ceremonies performed all over the country (also by all the civil servants) such as the rising of the Indonesian flag on Monday and the national physical exercises on Friday. However, there is little differentiation in the educational system and the absence of vocational schools is striking (Haskoning-Lidesco, 1988).

### Primary Health Care

In Indonesia, the primary health care system is divided into a public and a private health care sector. Most of the hospitals and doctors can be found in the private health care sector. Private health care is financed by its consumers and therefore relatively expensive. For example, if a family member needs to be operated and his family earns a small income, the family has to sell items like television, sofa, bed, and sometimes even their house in order to pay the hospital bill. Health insurance (as well as bank savings) is still rare for the majority of the population.

The public health care sector has grown enormously in the past four decennia. From an emphasis on health education in the first decennium, it has grown to a large public health service aiming to provide effective, inexpensive, and accessible health care. The health care is served through health care centres or PUSKESMAS in each village

and urban subdistrict. In 1988, the average number of people served by a PUSKESMAS was 52,000. The national standard is 30,000 persons per health centre (Haskoning-Lidesco, 1988). The average staff of a primary health care centre consists of a doctor, a dentist, a midwife, nurses, laboratory assistant, a vaccination worker, administrative personnel, and medical assistants.

The health centre services are inexpensive but often limited in quality and service facilities. A majority of the population rely on the public health centre for the treatment of common diseases and go to a private doctor or hospital after self medication and the public health centre have not cured them (Haskoning-Lidesco, 1988). Self medication is common in West Java where people take a lot of jamu (medicinal herbs) from early childhood onwards to cure certain diseases and to improve their physical strength and health (Koesoebjona-Sarwono, 1993). A national survey showed that, of the 11 million people who had been ill one week previous to the survey, 29.9% went to the PUSKESMAS, 25.4% medicated themselves, and 9.5% went to a doctor. With regard to doctor visits, a large discrepancy existed between people in urban (22.8%) and rural (5.5%) areas. The remaining 35% was dispersed over other categories: about 7% did not use medicines or medical assistance and 28% went to other places such as a hospital (5.8%), a nurse with a private practice (13.6%), or a traditional healer (4.8%) (Biro Pusat Statistik, 1987).

The Indonesian public health service is a typical bureaucratic government agency with a top-down strategy and an authoritarian approach to implement its services (Koesoebjona-Sarwono, 1993; Sciortino, 1992). The importance of community participation is recognized and incorporated into the system through the use of health volunteers (kader) coming from the community they serve. The staff of the health centres train these health volunteers to organize and assist the provision of primary health care at the local level. In practice, this means that the health centres are opened for the general public from eight till ten o'clock in the morning with the remaining part of the morning used for administration, training of kader, meetings with kader, or a visit to local community health activities. In the afternoon, staff of the health centres can undertake other practices such as a private clinic.

The task of the PUSKESMAS is to integrate curative, preventive, and

Table 2-4  
Reach of health posts to mother and child target groups,  
1984

(source: Haskoning-Lidesco, 1988)

Target group	Percentage reached
Pregnant women	33
Breast feeding women	36
Infants	75
Children under 5 years	25

promotive health activities (Sciortino, 1992). After rating the quality of health centres in West Java in 1987, it appeared that only 7% were qualified as good, 63% as sufficient, and 30% as insufficient. It appeared that curative medication was best taken care of, whereas preventive activities like health education and promotive activities like family planning were neglected (Haskoning-Lidesco, 1988). The health centres did not reach a large percentage of their target groups as is evident in Table 2-4. One of the main barriers was distance to the target groups. In order to improve the coverage of the public primary health care, community health services were integrated into a programme called the POSYANDU (Koesoebjona-Sarwono, 1993).

### POSYANDU

The establishment of POSYANDU started in 1984 and is mainly aimed at reducing the infant mortality rate. The health activities of the POSYANDU are concentrated on five areas: immunization, nutrition, diarrhoeal disease control, maternal and child care, and family planning. They serve children under five years of age (BALITA) and women who are pregnant or lactating (Koesoebjona-Sarwono, 1993). In the present research setting, one PUSKESMAS was related to 18 POSYANDU (Pemerintah Kotamadya Bandung, 1990). The average number of POSYANDU per health centre was 31.4 in Bandung and the average number of health volunteers counted 9.8 women for each POSYANDU (Kantor Statistik Bandung, 1990).

The POSYANDU is a monthly gathering in a garden, a garage, or a small community building organized by health volunteers and visited by someone from the PUSKESMAS able to give vaccinations. Officially, the POSYANDU is a gathering where women receive instructions about health related topics and family planning besides prevention (e.g., weighing, vaccinations) and cure. In practice, children under five years of age are being weighed once a month, given a vaccination when necessary, and given a free portion of nutritious food. About once or twice a year the doctor of the health centre and other officials will pay a visit and then all the official activities are performed (Sciortino, 1992).

Compared to the private health care sector, activities of the public health services are more visible in every day life because they include activities like health education --for instance visible in great boards on the side of the road-- and data collection. Public health centres are central in the data collection and administration for the Ministry of Health. They report about deaths, births, epidemic diseases, number of birth control acceptors, nutrition, and progress in the local community health activities. Most of the health education and data collection has to be carried out by the health volunteers at the local level. During monthly meetings at the PUSKESMAS, the volunteers are informed about their new tasks and the findings of past months are evaluated. To motivate the health volunteers to perform all these tasks, smooth running teams are given new dresses and furniture to operate the POSYANDU (tables, chairs, etc.), and a meal after each official meeting (Sciortino, 1992). Nevertheless, there is a high turnover of kader because of the burden of all these tasks, paperwork and the pressure to perform well (Koesoebjona-Sarwono, 1993).



Picture 3

A board on the side of the road encouraging people to marry at a minimum age of 20 years for women and 25 years of age for men, to finish education before marriage, and to have a maximum of two children



Picture 4

A smooth running POSYANDU team in front of some pamphlets



### Family planning

Family planning is a topic that has received a lot of attention from the Indonesian government, resulting in a great number of programs. The local programme is now under the umbrella of the POSYANDU where health volunteers have to motivate couples to use contraceptives (KB). Once a year, a "Safari KB" is held to locate eligible couples for free sterilisations at the hospital. In general, couples do not use contraceptives before having had any children. But even after the birth of one or several children, the use of contraceptives is not common. Government statistics show that the percentage of couples in their reproductive age who used contraceptives in 1991 was 49.7% (Central Bureau of Statistics, 1991). Mostly the reason for not using contraceptives is that the couple wants more children (26.3%). Uneducated women also cite a lack of knowledge of family planning as a reason for not using contraceptives (10.3%). If asked about fertility preferences 68.0% of the women who are **not** using contraceptives prefer not to have more children or only want another child after two years (spacing) (Central Bureau of Statistics, 1991).

In pregnancy and delivery, women can be assisted by doctors in the hospital, by PUSKESMAS midwives, by trained midwives in special centres (sometimes the midwife's house), or at home by traditional birth attendants. A combination is also possible like the trained midwife during the delivery and the traditional birth attendant for pre- and postnatal care. Traditional birth attendants --in West Java they are known as paraji-- are favored by low-to-middle income families. They assisted in more than 60% of all births in five years preceding the 'Indonesia Demographic and Health Survey' of 1991 (Central Bureau of Statistics, 1991). The paraji are usually old women from the community. According to Wessing (1978) only old women are allowed to become midwife because they are able to guard of evil spirits surrounding the birth of a child.

The paraji already plays a role before birth. After seven months of pregnancy, a ceremony is held for which neighbors and the paraji are invited. The paraji examines the pregnant woman and performs some rituals (Wessing, 1978). After birth, the paraji helps the woman during the first 40 days after delivery and gives massages to shrinken the uterus. Surrounding birth, the paraji performs many rituals. One of these rituals is the circumcision of girls when a girl is but a few days old (Wessing, 1978)<sup>2</sup>. All of the girls in my sample were circumcised by a paraji. Another example of a ritual is the paraji putting a cord around the neck of the baby to ward of spirits and ensure the child's good health. The cord has to go off by itself. This ritual can be repeated when the child is not eating well or often sick in toddlerhood (e.g., Mustapa, 1985). In the earlier days, many performed their tasks non-hygienically and sometimes harmful to the women in labor. Now, many of the paraji have been trained by the health centres and have been given special tool kits to work hygienically. The paraji can be rewarded with money, cloth,

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<sup>2</sup> The circumcision of boys is performed by a dukun sunat at home or by a doctor in a hospital and will usually take place after the boy is about 8 years of age. It is a great celebration in contrast to the circumcision of girls which is done quietly, without much public notice (Wessing, 1978).

rice, or chickens. The amount and kind of the reward is related to the family's circumstances (e.g., Koesoebjono-Sarwono, 1993; Zuidberg, 1977).

### Food habits

Health is also related to the food habits of the family. Most of the babies are breastfed until they are about two years old. A few days after birth, babies are already given some supplementary feeding like bananas or biscuits. There are several restrictions on the kind of food a child is supposed to eat (e.g., Adimihardja & Utja, 1991). In general, crying or fussy children are given food or snacks (jajan). A regular meal for a small child consists of rice and salt, rice and the liquids of vegetables or soup, rice with a fried egg, or rice with fried soy-bean curd. Jajan are a broad category with fruit, an array of fried food like bananas and krupuk, ice-creams, and candies.

Indonesian parents believe that snacking does not ruin a child's appetite for a regular meal (Carlin, 1996). The only problem parents have with snacking is the amount of money they have to provide to their children. At a certain age, children understand that they can ask for jajan. Before that age, parents will say: "My son is still young, he does not know the word snack yet". When children are able to walk they will get some money to buy jajan by themselves. After children are about four years of age, parents do not longer allow them to buy jajan through the entire day due to the costs involved. Parents feel that the age of the child enables the child to understand their reasoning. After a refusal, some children are very fussy and go through a kind of second weaning period with a lot of crying and temper tantrums. Some parents will give in periodically, other parents discipline their child with all kinds of threats, in other families a relative can not bear to see the fussing child and buys it a jajan.

From a nutritional perspective, the provision of jajan has both advantages and disadvantages. The advantage of jajan is that it is often a necessary supplementation to the low-protein percentage in regular meals for children. The main disadvantages are the hygienical condition of the jajan and the possible use of harmful additives. For instance, a slice of mango sold for 50 Rupiah may have detrimental effects on the health of a child if it is washed in the river before being put in a plastic bag and carried around for several hours. Additives are, for instance, strong colouring to make it attractive for the child or certain spices. The jajan are made as cheap as possible with additives that may not be legal. The production of many jajan is not regulated by health inspections and rules (e.g., Bijlmer, 1987; Carlin, 1996).

The nutritional status of Indonesian children is a general health indicator and a main topic in intervention programs like the POSYANDU. In general, four levels of nutritional status are identified: good, moderate, bad, and severe. In 1989, 54.2% of the children under five years of age were found to have a good nutritional status, 35.3% were found to have a moderate nutritional status, 9.2% a bad nutritional status, and 1.3% severe malnutrition (Biro Pusat Statistik, 1991b). Although the nutritional status of Indonesian children has improved over the past decennia, it still needs considerable attention.

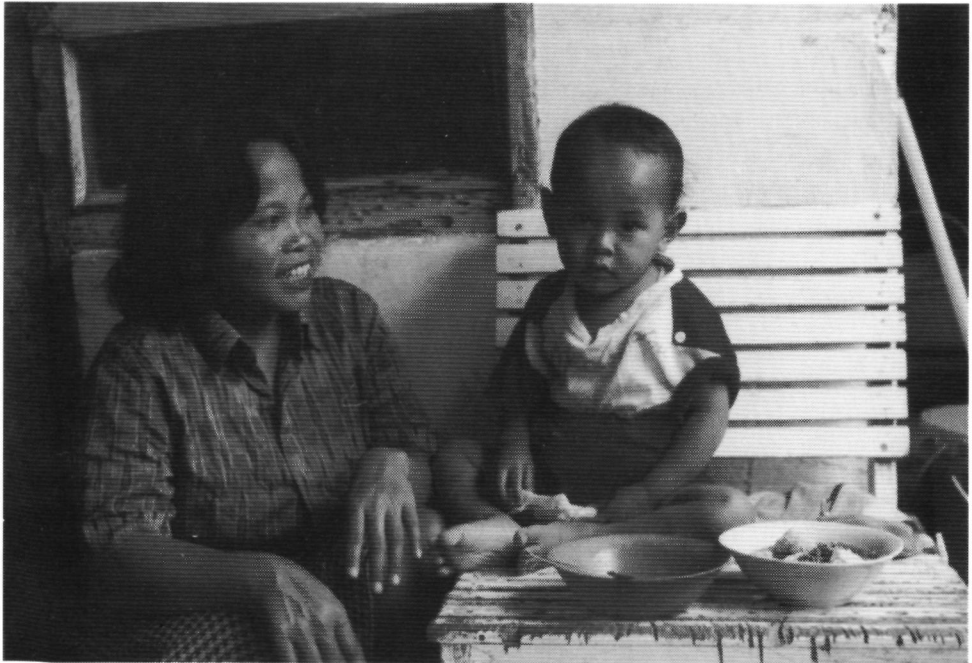
With regard to health problems and food habits, Koesoebjono-Sarwono (1993)





Picture 5

A snack in both hands to keep this 18-month-old girl satisfied



Picture 6

A meal of noodles and krupuk for this two-year-old boy

remarked that "It has been widely acknowledged that the state of health of a given group depends very much on the non-physical aspect, particularly the people's attitude towards health/illness and their intention to tackle health problems within the individual, family and in the community" (p.34). I also found that food habits are not so much related to the economical situation of the family but more to the education of the parents and the understanding of nutrition and hygiene in relation to food intake of their children.

#### Research site: Bandung

Bandung --the present research setting and the third largest city in Indonesia-- is a metropolitan area in the centre of West Java province. Bandung is located on a mountain plateau about 650 meters above sea level and surrounded by mountains. It has a relatively cool climate. In the surrounding mountains of Bandung, the temperature enables the growth of cabbages, potatoes, carrots, French beans, and other mid-latitude vegetables (Bottema, 1995; Braadbaart, 1989). Bandung's industries are fast growing with products like cloths and shoes giving work to thousands of young adults (Braadbaart, 1994). Bandung is also an educational centre for a large part of West Java with three Universities and many secondary schools.

Between 1980 and 1990 Bandung experienced an annual growth rate of 3.5 percent, with its population increasing from 1.5 to 2.1 million persons (Biro Pusat Statistik, 1991a). However, the growth of numerous suburbs and the spill-over into surrounding districts or Kabupaten makes this number rather arbitrary. At our research site in the northern part of Bandung, population density was around 9,000 persons per square kilometer in 1990 (Pemerintah, 1990).

Administratively, the city of Bandung is divided into 26 sub-districts. Each sub-district is again divided into several regions or 'villages' (kelurahan) headed by a person (lurah) in charge of the daily affairs of that region. The lurah's office resembles the PUSKESMAS system. Each region is again divided into smaller community units or hamlets (RW) and these RW are subdivided into neighborhoods or RT. One RT contains about 40-60 households. The RWs and RTs are headed by trained male volunteers selected among the community members with elections taking place every four years. These community leaders are responsible for the daily affairs and have to collect fees and organize, for instance, security patrols at night, and repairs to communal objects or roads. They also have the duty to collect data about household circumstances like occupation, sanitation, migration. They have to report to the lurah regularly. Their wives are often in charge of the activities at the POSYANDU.

The administrative structure of the hamlets and neighborhoods do not necessarily coincide with the kampung. The kampung is a residential area behind a facade of big houses whereas a neighborhood also includes the big houses. Furthermore, a kampung often contains several neighborhoods but can be smaller than a hamlet. Finally, the boundaries of a kampung are more diffuse and historically formed compared to the administrative boundaries of a hamlet.

## The Sundanese

Bandung is the homeland of the Sundanese. This ethnic group sets the standards of appropriate behavior in public places (Suwarno & Rahardjo, 1987). After the Javanese, the Sundanese are the largest ethnic group in Indonesia. The Sundanese occupy the western part of the island of Java. All the families in our sample are of Sundanese ethnicity. Although living on the same island, Sundanese --in earlier days sometimes referred to as 'mountain people'-- differ from Javanese in lifestyle, language, and customs. In some ways, one can find parallels between, for instance, Javanese and Sundanese cultural practices like wayang. In other ways, these practices differ substantially. Not only is the Sundanese wayang a wooden three-dimensional character (as evident in the picture) compared with the flat Javanese wayang made of leather, the stories are also different in substance, temperament, and length (e.g., Hidding, 1935; Harsojo, 1983; Surjadi, 1985). Also, the division of a typical Sundanese house is the reverse of the typical Javanese house plan although both divide the house into a women's area, a men's area, and a neutral space (Wessing, 1978). Most houses have a guest room in the front which is as beautifully decorated with furniture as the household budget tolerates. Strong fluctuations in the budget are also visible in this room. The next room is the living room where people sit and relax on straw mats on the floor.



Picture 7  
The Sundanese wayang is a three-dimensional character

### Marriage patterns

Traditionally, the Sundanese were known for their young age at marriage and very high rates of divorce and remarriage. In early days, marriages of women under ten years of age were common (McDonald & Abdurahman, 1974). Although child marriages are rare nowadays, the age of first marriage is still below 18 years of age for 49% of urban women and 65% of women living in rural areas (Suwarno & Rahardjo, 1987).<sup>3</sup> McDonald and Abdurahman (1974) noticed that the increase in age at marriage is highly associated with an upward trend in level of education. Data of the present sample confirmed that both women and men married at a significant later age when socio-economic circumstances, such as education level, were higher. Furthermore, it became evident that the declining divorce rate among Sundanese from about 40% to 20% in twenty years (McDonald and Abdurahman, 1974) was also apparent in the small number of remarriages found in the present sample.

### Customs

Many Sundanese customs (*adat*) circle around significant transitions in the life course like birth and marriage (e.g., Wessing, 1978). In the past, Sundanese customs were documented by Dutch missionaries or administrators. Some of these Dutch documentations provide rather good descriptions of customs that in some or reminiscent form still exist in the present. Hidding (1935), for instance, described *pamali* and *patang* (restrictions and precautions) surrounding pregnancy that the pregnant woman, her husband and others in her presence need to follow. If some rule is not obeyed, it can have its effect on the delivery and the development of the child (Hidding, 1935, p. 37). The contemporary use and faith in these precautions is illustrated by an excerpt from my fieldnotes:

“Asep (18 months old) is sitting and playing on the floor. His mother is with him and waves the observer to come near. His mother shows the observer a big wine-colored spot on the back of the child that the child has had since he was born. Mother says that this spot is on the back of the child because, at the time of the pregnancy, the father of the child had forgotten to invite the child to eat before he would start eating. Both parents-to-be have to tell the foetus what they are going to do and invite it, like ‘let’s prepare dinner’ or ‘let’s cut the vegetables’. If these restrictions are not followed, something might happen. The mother continues to explain that there are many other restrictions during pregnancy that both new parents have to follow. For instance, the father is not allowed to slaughter an

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<sup>3</sup> In the present sample, a small group of women ( $n = 7$ ) and men ( $n = 8$ ) had married more than once. Their average age at first marriage was respectively 13.6 years for the women ( $SD = 2.07$ ; range 12-17) and 20.3 years for the men ( $SD = 5.10$ ; range 12-28). Of the other couples, women were married at the average age of 18.5 years ( $SD = 3.22$ ; range = 11-26) and men at 23.1 years ( $SD = 3.59$ ; range 15-33).

animal or the unborn child will get hurt or be deformed...” (Narrative report 23-7-1991, case 3, 10:30-10:45 hrs.)

Another example of the belief that circumstances and behavior of people will affect the unborn child is a regularly stated request during fieldwork by pregnant women asking me to touch their belly. Some of the women said that the child would then get a nice white skin, others were more in love with the observer’s nose and hoped for that effect. In order to “do it right” their wish should be made at the moment the belly was touched.

In the past decennia, a growing body of literature and research reports document about Sundanese caregiving values and child rearing practices (Adimihardja & Utja, 1991; Harsojo, 1983; Mustapa, 1985; Warnae et al., 1987). In a review of Sundanese oral history and literature it is stated that the Sundanese value their children to trust, to respect, and to obey older people, and to readily adapt to the demands and habits of the community where one lives. The parents themselves are obliged to treat their children well and educate them into becoming valued and responsible persons. It is furthermore believed that children carry their own rezeki or destiny which a parent should respect and not hinder (Warnae et al., 1987).

Although the relation between values and practices is discutable (what people say and what they do...), the knowledge of Sundanese values can help us to understand some Sundanese parental practices that otherwise were hard to interpret. An example is the teaching behavior of most of the Indonesian mothers towards their children. I observed that most of the mothers tried to fulfill their role as teachers as best as they could. They did not see themselves as play partners during interactions with their children. This was confirmed by findings of Widjaja (1989) who made an inventarisatation of Sundanese child rearing practices (N = 40). In this research an interesting observation was made with regard to the construct ‘play’ (main). Rarely, a mother plays with the child in the sense of playful following in a game that the child is doing. When mothers say that they play with the child, they mean that they take the child and carry it to a warung (small kiosk) or neighbor for a chat (Widjaja, 1989). Mothers see themselves as instructors or teachers the moment they think a child should learn something. Through modeling, children learn what to do and what is expected of them (Widjaja, 1989).

The double meaning of play also becomes clear in research investigating traditional Sundanese values of child rearing (Adimihardja & Utja, 1991) in which mothers say that you have to play with a young child regardless of how busy you are unless you have older children who can ‘take the child to play’. For a mother with a young child, the most important task is the protection against accidents and dirt. Therefore, she has to watch its moves continuously while pursuing her household chores. Most of the mothers carry the child in the slendang (carry cloth) while doing the laundry or sweeping the floor. If they need to do something without the child, the child is given to a big enough person willing to ‘play around’ with the child. Often, there are enough willing participants. Inside the house, a small child is allowed to roam around more

freely dependent upon the condition of the house. A number of houses in the present sample still had a dirt floor, but often some corner was temporarily made safe to play while the mother attended the child. Only after the children became three years old, they were left alone to play for a short period of time.

### Parents' role

Which role do Sundanese parents perform in the family? In general, most of the child rearing is in hands of the mothers or other female kin and not of the fathers (Adimihardja & Utja, 1991). The Sundanese belief that women should be primarily responsible for raising the children and managing the household (Warnaen et al. , 1987). The role of the father is also rather traditional. He does not share as much intimacy with his children as his wife. A father is said to 'hold the authority'; he is the one who is responsible for the economic situation of the family and also the one who decides on important family matters (Adimihardja & Utja, 1991). This does not mean that women are not allowed to have a job outside the household. According to government statistics, the rate of women aged 10 years and over participating in the labor force in urban areas was 32.7% in 1990 and 49.1% in rural areas. A lot of women find jobs that are near or in their house like a warung or selling prepared food. Of the employed women, 42.4% were family worker, 33% were self employed, 23.9% were employee, and 0.7% were employer (Biro Pusat Statistik, 1991b).

The present chapter has provided some ethnographic information with regard to the Sundanese parenting context. This may serve as a general background for the data to be presented in the empirical part of the present thesis. The ethnographic information in this chapter relates to the five domains that are part of the conceptual framework of the parenting context presented in the first chapter and further elaborated in the empirical chapters. From this chapter, it has become clear that family structure is a hot topic in Indonesian government policy. The information on the educational system shows the relevance of including the domain of education in a study in a developing country like Indonesia where the level of education not necessarily coincides with someone's capabilities. In relation to the domain of wealth, ethnographic information can be found in the description of the general living conditions in a kampung. The domain of health has been extensively documented in this chapter because of its importance for the child's development. Ethnographic information about the domain of residential mobility is somewhat fragmented in this chapter but is associated with population density and the occupational mobility of fathers. The next and final chapter of this introductory part provides an overview of the methodology employed during the fieldwork in Bandung.





## **Chapter 3**

### **Fieldwork in Indonesia: Practical and Methodological Encounters with Parents and Children**

Fieldwork is considered the hallmark of anthropology. Doing fieldwork means asking questions, eating strange foods, learning a new language, watching ceremonies, taking field notes, and hundreds of other things in a setting that is unfamiliar in many respects (Spradley, 1979). For a western psychologist, doing research in a non-western setting will inevitably resemble fieldwork. Many unexpected things happen because you are used to other customs and reaction patterns. Often, people first react to you with amusement and sometimes bewilderment. Other people will try to get loans or money. You have to learn a new way of presenting yourself. You also have to learn to cooperate with foreign students and co-workers. Since transportation and communication means are often less developed, you have to spend more time in going back and forth and need an open agenda with several alternatives for home visits. Furthermore, you spend an equal amount of time collecting data in the field as you spend in consolidating data outside the field. In other words, fieldwork includes lots of homework. You make notes of everything you have observed and heard and you record how people reacted towards you, your behavior, and your questions. A daily consolidation is the most important task of fieldwork (Agar, 1978).

Thus, systematically collecting data in an unfamiliar setting requires a lot of notebooks and endurance. It also requires a more comprehensive presentation of the procedures and the instruments employed during the fieldwork compared to research in a regular setting. This chapter presents a practical and methodological overview of the thesis. The presentation consists of five sections and mostly follows the sequence of the empirical chapters. The first section contains general information about the research methodology: its design, statistical methods, and the sampling procedure. The second section describes the methods used to gather contextual data. In the third section, methods to assess the quality of parental support are reported. Instruments to investigate the quality of the home are presented in the fourth section. The fifth and final section is about the measurement of attachment security.

#### **Research Methodology**

In this section, the research methodology of the present research project is described in order to offer more complete information than was possible in the separate empirical chapters. It contains information about the research design, statistical methods, and sampling procedure. A short description of the research design is offered because a mix of anthropological and psychological methods might cause confusion about the



basic pattern and intent of the research project. Statistical methods are discussed shortly in order to clarify decisions behind the choice of some of the techniques. Furthermore, the sampling procedure is given some attention by including an overall presentation of selection criteria, the sampling strategy, and a general investigation of differences between subsamples.

### Research design

The present thesis contains both exploratory research and hypothesis testing research. The exploratory research consists of analysing the ethnographic material, constructing contextual variables, and analysing the relation between the constructed contextual variables on the one hand and the quality of maternal support and attachment security on the other hand. Hypothesis testing research is done with regard to the relation between the quality of maternal support and the quality of the immediate environment of the child, the relation between the quality of maternal support and attachment security, and the distribution of attachment patterns.

Figure 1-2 in Chapter 1 has shown two empirical chapters to encompass an intracultural comparison between two socio-economically different groups (Chapters 4 and 6). As explained in the first chapter, the present thesis is not focused on examining cross-cultural differences. Furthermore, the research design includes a cross-sectional method by comparing children of different ages (Chapters 6 and 7). The research mostly uses non-experimental methods with the exception of the assesment of attachment security and the quality of maternal support in the structured play session.

Although the conceptual model for describing the context of parenting receives explicit attention, this thesis does not aim to test this theoretical model. The adapted version of the ecological model of Bronfenbrenner is merely used to structure variables into domains and contexts surrounding child development (Chapters 1 and 4). In its present use, it is not considered to be a testable model.

### Statistical methods

The SPSS-X package was used for all statistics. The rationalisation behind choosing some of the statistical methods used in the present thesis will be discussed shortly. These methods are factor analysis, analysis of variance, multiple regression, and discriminant function analysis.

Factor analysis was primarily used to reduce the number of contextual variables. The aim was to construct factors for each of the domains and contexts described in the adapted ecological model. The rationale behind the allocation of the variables to a domain or context is discussed in the next section and Chapter 4. In factor analysis, only the variance a variable shares with other variables is considered relevant to the solution. In this way, commonalities between the variables were stressed and differences disregarded. Because many of the variables were rather heterogenous factor analysis was considered more appropriate than summing their frequencies. In some cases, however, the number of the variables within a context and domain might have posed a problem for factor analysis because a small number of variables makes factors potentially unreliable

(Tabachnik & Fidell, 1989). Nevertheless, we decided to use factor analysis consistently as a method of data reduction because it allowed for heterogeneous variables to form one factor and because the small number of variables in each of the domains and contexts was a better condition for factor analysis than a large number of variables at once considering the variable-subject ratio (Anastasi, 1982; Tabachnik & Fidell, 1989).

In general, a multivariate analysis of variance (MANOVA) is recommended when multiple correlated dependent variables are involved. In Chapters 6 and 7, univariate analysis of variance (ANOVA) was additionally used to examine the existence of significant and reliable differences between two or more mean scores when separate analyses for each of the dependent variables would do more justice to the data. In these cases, relevant information would have been lost by only considering multivariate statistics. The use of multivariate analyses would have meant a significant loss of power due to the interactions between the dependent variables, the relatively small sample size, and the unequal number of subjects in each cell. Furthermore, the use of MANOVA may result in an unacceptable loss of power if a one-tailed test of significance is desired (Tabachnick & Fidell, 1989).

Multiple regression analysis was used in Chapter 5 in order to assess the contribution of the contextual variables to the quality of maternal support. Although we realised that multicollinearity could be a problem with many correlated dependent variables and a comparatively small number of subjects, it was thought to be the most appropriate method for investigating the relative contribution of the three different contextual levels on the quality of maternal support. Furthermore, the occurrence of multicollinearity was not identified after having checked the height of the squared multiple correlations and the standard errors of prediction (Tabachnick & Fidell, 1989). Results of the regression analysis were not used to infer causal relationships between contextual variables and the quality of maternal support.

In Chapter 7, hierarchical discriminant function analysis was used to investigate whether variables in the parenting context predict differences among groups of children varying in the quality of their attachment relationship. The quality of maternal support was put in between the contextual variables and the attachment qualities by entering this variable with the highest priority. Theoretically, it seemed to be the correct step to assume that the quality of support a mother provides acts as a buffer or intermediate between the child and the parenting context. Statistically, the procedure might have been more elegant if the effect of the quality of support on the contextual variables had been eliminated beforehand. This was, however, not feasible with the SPSS-X package. Therefore, the discriminant function analysis was set up in a hierarchical manner with the quality of maternal support --which we consider to be a covariate-- viewed as another predictor that is given top priority (Tabachnick & Fidell, 1989).

### Sampling procedure

In selecting the families, use was made of the following general criteria: the families had to be of Sundanese ethnicity, to have a low or low-middle socio-economic status (SES), and to have one or more children under six years of age. We did not focus

on first-borns because we assumed that it was ecologically more valid to the Indonesian parenting context to include variation in the birth order and the number of children and regard the latter as a contextual variable. Furthermore, children with mental or physical disabilities were not included. Our objective was to have a stratified sample with fifty boys and fifty girls evenly distributed over five age groups.

An intracultural comparison was made between two groups differing in socioeconomic status: low SES families and low-middle SES families. The families of low SES were primarily found in the community that will be referred to as 'Loompoor'. The low-middle SES families came from a community labeled 'Sheraton'. The sampling strategy differed somewhat for the two subsamples. In the first community, a door-to-door census in two adjacent administrative units (RT's) listed 180 families of which 99 families had children under six years of age. A door-to-door census is useful in cases in which there is a great likelihood of identifying families eligible to participate in the study and in cases in which local registration of families is not complete. In the low SES community, our aim was to have six boys and six girls per age group. If an age-sex group had this desired number of children, new families with children in this particular group were only administered a census but not included in the research sample. A total of 48 families (with 62 children under six years of age<sup>1</sup>) were selected.

In the second community, a door-to-door census proved to be too time-consuming, because here young children were scattered over seven adjacent administrative units of about 70 families each. In this case we relied on local informants working in child care to point out families with children under six years of age and on an administrative list of the local POSYANDU. Our aim was to have four boys and four girls per age group. A list of 80 families was provided of which 38.8% were of low SES and another 21.2% were not eligible for various reasons (e.g., ethnicity, moved). The remaining 32 low-middle SES families (with 35 children below six years of age) all participated in the study. The distribution of children over age and gender groups is shown in Table 3-1. For further analyses we only considered the oldest children of the

Table 3-1  
Distribution of the full sample of boys and girls over age groups

Age group (months)	0-12	13-24	25-36	37-54	55-72	0-72
Gender						
Girls	8	11	9	9	9	46
Boys	9	10	12	11	8	50

<sup>1</sup> One boy was almost six years old at the time of the census and was later excluded from the sample of 62 children.

family in the 14 families where multiple age-eligible siblings were present. The distribution of the oldest children over age and gender groups is reported in Chapter 5.

In both communities, no family refused to participate. The researcher volunteered in the local Health Registration Centre preceding data collection where she had already met most of the families. Furthermore, the researcher had an official research permit that enabled her to formally request support of civil servants and local leaders at all levels. The support of local leaders was great and reassured the participating families of the serious intent of the research project.

Sample descriptives are enlisted in Table 3-2. From Table 3-2, it becomes clear that the two subsamples did not differ significantly in the average age of parents, the average number of household members, and the mean number of extended family members living in the same household as the nuclear family of the target child. The mean number of children in each family was almost significant with families in Loompoor having more children than families in Sheraton. In other words, the social composition of the immediate environment of the children in the two communities did not differ in most respects.

Table 3-2

Sample descriptives of two socio-economically different communities: Loompoor and Sheraton

Descriptives	Loompoor (n=48)			Sheraton (n=32)			t value
	Mean	SD	Range	Mean	SD	Range	
Age of mother	26.60	6.19	14-42	29.13	5.00	20-40	1.06, p=.31
Age of father	31.23	7.15	20-49	34.28	6.24	23-50	2.09, p=.15
Number of children	2.50	1.24	1-8	2.20	1.66	1-5	4.26, p=.05
Household size	5.40	2.47	3-13	5.63	2.09	3-10	0.46, p=.50
Extended family members in household	1.25	2.24	0-10	2.28	3.04	0-11	2.59, p=.12

### Contextual Variables

Contextual measures were obtained by means of a census, an ethnographic interview, and health records. A census has been conducted to provide basic statistical

information about the characteristics of the sample. Besides the provision of structured data, a census is a good way to introduce yourself as a researcher. The ethnographic interview supplied information about opinions, values, and ideas related to parenting and child development. Actual health data of the children were gathered by means of health records.

### Census

A regular census provides basic demographic information about the sample under study. In the present census, a genealogy was included that described the family tree of the participants. This is useful in order to identify, for instance, the origin of play partners of the child or the size of the family of origin. With the census, data were gathered about family structure, residential mobility, wealth, health, and education of all family members.

Procedure. The census was administered to all families. To start a census, the first thing to do is draw a sketch map of the area marking on it each house. A sketch map is made by walking around a lot and asking about the different houses. Furthermore, cooperation of the local leader is essential, because people do not feel comfortable if you go around drawing without his permission.

The census was administered in the form of an interview. It was not feasible to ask families to fill in a questionnaire for several reasons. First, families differed in level of education with some participants not having had any education and others secondary schooling. Second, some assistance is often required in remembering certain facts. For instance, the age of a family member can be asked directly. If a subject has forgotten the age, the question can be asked indirectly by first ranking siblings and then asking about age differences or birth intervals.

In the first part of the interview, the researcher introduced the research project and asked whether the mother was willing to participate. The participants were informed that the information they gave was confidential and only used for research purposes. By giving each census a number instead of a name, they were assured that the researcher was the only person who knew of whom the information was. The second part of the interview was the actually questioning and writing down of the answers. In general, completing the census took about an hour.

Instrument. The census contained questions about the nuclear family and household members (age, sex, place of birth, relationship to head of household, occupation, education, place of residence), marriage history of parents, contraception, diseases, vaccinations, settlement patterns of parents, family of origin of father, family of origin of mother, incoming finances, possessions, and expenditures (Appendix A). The reliability of the answers was checked and double-checked by indirect questioning and observations.

### Ethnographic interview

An ethnographic interview resembles a series of casual, friendly conversations. The researcher slowly introduces topics into the conversation and then posits questions

until the researcher understands the informant's point of view. It may never become a formal interrogation because the informant must feel at ease. The informant should get the feeling that the researcher wants to understand the topic and needs the informant's explanations (Spradley, 1979). An ethnographic interview falls between a structured and an unstructured interview in form and is especially focused at understanding what the informant thinks about certain topics. In the thesis, the ethnographic interview is also referred to as the 'values and attitudes interview'.

Procedure. During home visits, the researcher casually introduced topics related to parenting and child development. Only short notes were written down during the interview. At the end of each day, the short notes were consolidated by writing down everything that happened during the visit into a narrative report. The information related to the topics was furthermore reported in a questionnaire format in order to structure the data and detect information gaps to be filled in next visits.

After ethnographic interviews in 32 families in the first community and 23 families in the second community, no new information was provided by the mothers. Regrettably, I then decided to refrain from conducting these interviews with the remaining families. Anthropologically speaking, this decision was logical because informants had mentioned all the values and attitudes present in their community that would help the researcher understand certain parenting practices. For developmental psychology, however, the incomplete data set of 25 families had some statistical consequences.

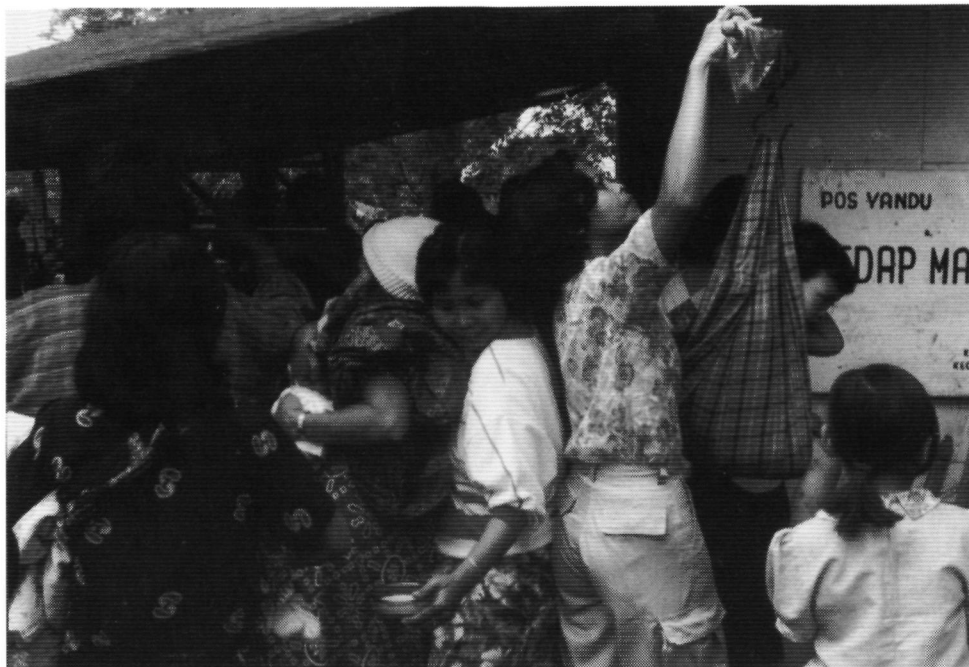
Instrument. The interview included topics related to parenting and the settings in which the child could play. The topics are: characteristics of the vicinity of the house, dangerousness of the area for children, play areas, toys and games, birthday, daily routines, religious and community participation of parents, mobility aspirations, regular meals, breastfeeding, language, sleeping patterns, number of caregivers, parenting goals, and circumstances surrounding birth (see Appendix B). Some of the household related topics came from the 'Field Guide for the Study of Socialization' from Whiting and his colleagues (1966).

### Health records

The health records consist of weight measures, received vaccinations, and supplementation of vitamin A. In the ideal situation, children are weighed every month from birth till five years of age, receive all the necessary vaccinations, and get a supplement of vitamin A twice a year.

Procedure and instrument. The health records were administered in a local health registration centre called a POSYANDU (see Chapter 2). The parents were given a colorful leaflet (KMS) with all the health information of their child to be taken with them on each visit to the POSYANDU. The KMS showed the child's growth curve relative to a regular Indonesian child with colors indicating the nutritional status of the child. The growth information was also registered separately on a record containing all the children who attended the POSYANDU. The monthly gatherings of the POSYANDU in a garden (Loompoor) and in front of a small community building (Sheraton) took





Picture 8

A POSYANDU in action: Weighing and distribution of free nutritious meals

place between nine and eleven o'clock in the morning.

The children were first weighed in a carrying cloth strung to a balance. The woman operating the balance yelled the weight to one of the volunteers at the table who then filled in the KMS and registered the weight on a small sheet to be later used to fill in the health record of the POSYANDU. It was often too busy to register both the KMS and health record at the same time. The vaccinations were given by a trained staff member of the PUSKESMAS who also filled in the KMS and a POSYANDU registration.

#### Allocation of variables to domains and contexts

The contextual measures obtained by means of these methods had to be allocated to five domains and three contexts in accordance to the adapted version of Bronfenbrenner's ecological model (see Chapters 1 and 4). The allocation followed two steps. The first step was assigning measures to the domains. In general, this proved to be rather simple. The second step was the assignment of the measure to the appropriate context. The allocation of variables to certain contexts was not always easy. The problem was the theoretical viewpoint and not so much the definitions of the three contexts (described in Chapter 4). For instance, the immediate environment, social context, and cultural context can be filled with completely different measures from a biopsychological, economical utility, or semiotic point of view (Chapter 1). In the domain of education, for instance, education level of the parents has been assigned to the



immediate environment. It could have been assigned to the social context because it is an economic feature of the family. However, parental education level was considered to relate strongly to the level of educational stimulation the child received from its immediate environment and therefore a characteristic of the persons a child had direct contact with. The education level of extended family members should then be placed in the social context and not at the same level as the parent's education level. In sum, the allocation of measures tried to follow the definitions and the ecological tradition as closely as possible.

### **The Quality of Parental Support**

The quality of parental support has been assessed with two different instruments in two different situations: the nine-point Sensitivity Scale developed by Ainsworth, Bell, and Stayton (1974) to measure the quality of parental support at home and five seven-point rating scales developed by Erickson, Sroufe, and Egeland (1985) to assess support in a structured play session. The procedures and instruments will be discussed separately for the home and the structured play session assessments.

#### **Sensitivity Scale at home**

The Ainsworth Sensitivity scale is used in attachment research to assess the quality of parenting or quality of support that caregivers provide their children. The scale measures caregivers' sensitive responsiveness or the ability of caregivers to perceive, correctly interpret, and respond promptly and appropriately to the child's signals and was found to be the best predictor of attachment security (Ainsworth, Blehar, Waters, & Wall, 1978). Sensitive responsiveness is considered to be a more or less stable trait. In this thesis, the scale was used to rate the mother's sensitive responsiveness to 12-72 month old children.

**Procedure.** Home observations were conducted regularly by the author and three field assistants. The author visited the families at times of the day when mothers were not preoccupied with their household chores such as laundry or cooking. By means of participant observation, mother-child interaction could be observed during daily routines. The average number of visits by the author was 2.9 (range 2-5) resulting in an average of 3.2 (range 2-7) hours of observation for each child. These observations were consolidated in narrative reports. The field assistants made specimen descriptions of the child's behavior across the entire day. Each visit took approximately three hours in which the assistants recorded what the child was doing, how the child reacted towards others, who was present, where the activities took place, and what the child was eating. They accumulated an average of 8.3 (range 0-15) hours of observation for each child. The narrative reports and the specimen descriptions formed the data base to rate the mother's sensitive responsiveness.

**Instrument.** The Sensitivity scale is a nine-point rating scale. A caregiver who gets a rating of nine is considered to be highly sensitive whereas a rating of one points

to highly insensitive caregiver behavior. A rating of five is given to a caregiver who is inconsistently sensitive. A definition has already been given of a highly sensitive caregiver. A highly insensitive caregiver “seems geared almost exclusively to her own wishes, moods, and activity” whereas an inconsistently sensitive caregiver can be quite sensitive on many occasions but also insensitive on other occasions (Ainsworth et al., 1974). A complete description of the scale can be found in Ainsworth, Bell, and Stayton’s chapter (1974).

Four months after the initial ratings, the author rated 14 of the subjects again. The test-retest reliability for the sensitivity ratings at home was found to be .94 (Pearson correlation).

### Support scales in the structured play session

The structured play session was included to observe playful task-oriented interactions between the caregiver and child. These kind of interactions occur regularly in everyday life. For instance, when a child learns to wave someone goodbye or learns to eat by himself. In everyday life, however, it is not easy to find and compare task situations over a number of dyads. Therefore, a situation was created that was similar for all dyads with children in a certain age group: the structured play session. Two main advantages of this structuring of the caregiver-child interaction are standardisation and an increase in the number of possible observations of the desired behavior.

Procedure. The mothers and children were invited to a setting in which the interaction could be videotaped. In western countries, use is often made of a one-way screen and a room in a psychological laboratory. Such a room was only available if we transported families by car over a certain distance. The organization and extra stress of transportation made me decide to arrange for a setting in the near distance of the families’ home. The setting had to be in walking distance of the homes of the participants. The participants came from two communities located several kilometres apart. Therefore, two settings were used. The first setting was a sleeping room in the author’s home with a bed located between the window and the play area, two chairs, one open cupboard, a straw mat (*tikar*) and toys. The camera was outside the room in the corner of a barred window. Above the camera, a curtain concealed most of the camera and the person operating the camera. The bed was placed in such a way that the child could not go out of the range of the camera. The second setting was in a local one-room community centre. There, tables were put on their side to mark the play area. The camera and operator were situated behind the tables just visible above the edge of the tables. During the videotaping, the mother and child sat on the straw mat.

The mother was asked to play with the child and try to let the child perform a certain task. The mother was told that she was allowed to help the child as much as she thought was necessary. For each task the mother and child were given about three minutes. The tasks did not have to be finished in time. If a child was very bored with the task within these three minutes another task was handed over. Each dyad was given five tasks. The tasks differed in difficulty dependent upon the age of the child (Appendix C). For instance, at 12 months of age, children were given tasks like rolling a ball or building



Picture 9

Camera positioned outside the structured play setting

a tower whereas 36 month olds connected a DUPLO-train or arranged blocks on colour.

An Indonesian research assistant read the Indonesian instruction to the mothers and informed in the Sundanese language (the local language) if the mothers had fully understood the instructions. The assistant gave the toys for each of the tasks to the mother and child.

Instruments. The seven-point rating scales have been developed by Erickson and colleagues (1985) to measure several aspects of the quality of caregiver behavior of which some are supposed to relate to attachment security of the child. The aspects are supportive presence, respect for autonomy, hostility, structure and limit setting, and quality of instruction. Supportive presence is defined as the expression of positive regard and emotional support for the child. It is an important aspect of parental support and lays the foundation for the development of the child's feeling of security. Respect for autonomy is defined as the recognition of and respect for the child's individuality,

motives, and perspectives. A caregiver who respects the child's autonomous explorations gives the child the opportunity to develop its own competencies. Hostility is the expression of anger, discounting or rejection of the child. A caregiver who expresses hostility shows the child that it should not expect the caregiver to be a secure base. Hostile caregiver behavior (signs of 'rejection') is often associated with an insecure-avoidant attachment relationship between the child and the caregiver. Structure and limit setting is defined as the adequacy of the caregiver's attempts to communicate her expectations with regard to the child's behavior and enforce her agenda adequately. During explorations children often find themselves in situations that they can not solve by themselves or are dangerous for their health. In these cases, a caregiver needs to structure the situation and to set limits to the child's exploration in a consistent and clear way as a way to provide adequate support. Finally, the quality of instruction is the degree to which instructions are timed to the child's focus, stated clearly, paced at a rate that allows comprehension, and graded in logical steps understandable to the child. A caregiver who provides high quality support will also be able to provide the child with the well-dosed portions of information in order to socialize the child smoothly.

The scales were applied independently by Cristina Reciputi, a trained graduate student from Italy, Marianne Riksen-Walraven, one of the supervisors of this thesis, and the author. The interrater reliability was expressed in Pearson correlations and computed for 16 dyads. It was .90 for supportive presence, .86 for respect for autonomy, .79 for hostility, .79 for structure and limit settings, and .89 for quality of instruction.

The scales were intercorrelated to investigate whether they represented the same construct: the quality of maternal support. For the analyses, the score for hostility was reversed (8-x). All intercorrelations between the five rating scales were found to be significant and in the expected direction (Table 5-2 in Chapter 5). The internal consistency of the five scales was satisfactory (Cronbach alpha= .65). The exclusion of hostility improved the homogeneity of the construct (Cronbach alpha .78) but we decided to include it for theoretical reasons. The ratings were summed to create a single score for the quality of maternal support in the structured play session.

### The Quality of the Home Environment

An investigation of the quality of the home environment explores the immediate environment in detail. Due to characteristics of the instruments, the quality of the home environment has been examined separately for two age categories: infants and toddlers (0-3 year olds) and preschoolers (3-6 year old children).

#### Infants and toddlers

The quality of the home environment of 0-3 year old children has been examined in various cultures and was found to differ considerably. The quality of the home differs not only between cultures, but also within the same culture (e.g., Bradley et al., 1989; White & Watts, 1973). It is therefore interesting to examine the quality of

the home of Indonesian infants and toddlers and relate it to the parenting context.

**Procedure.** During a home visit, one of the local research assistants and the author interviewed mothers and observed mother-child interaction in order to assess the quality of the home environment of 41 children aged 0-36 months.

**Instrument.** The Infant/Toddler version of the 'Home Observation and Measurement of the Environment' (IT-HOME) has been developed by Caldwell and Bradley (1984) to assess the quality and quantity of environmental stimulation and support available to infants and toddlers at home. The IT-HOME was translated into the Indonesian language by Zeitlin and Satoto (1990) and administered according to standard procedures. The research assistant and researcher discussed the meaning of all items first and then trained the use of the instrument in a few families who did not participate in the main study.

The IT-HOME consists of 45 binary-choice items clustered into six subscales: Parental responsivity (i.e., positive verbal and emotional responses), Acceptance of child (i.e., absence of punitive responses), Organization of the environment (i.e., regularity and stimulation in the physical and temporal environment), Play materials (i.e., provision of age-appropriate toys), Involvement (i.e., degree of involvement and attention for child and its development), and Variety of stimulation (i.e., opportunities to experience variation in daily caregiving) (Caldwell & Bradley, 1984; Bradley et al., 1994b)<sup>2</sup>.

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<sup>2</sup> We could not conduct a factor analysis on the separate items in order to identify if the above described clustering of subscales of the HOME was also reliable and valid in Indonesia, because of the small sample size in relation to the number of items. Furthermore, Bradley and colleagues (1994a) stated that the applicability of factor analysis on the HOME items to non-American cultures is still questionable. However, there has been a study by Zeitlin and Satoto (1990) with a sample of 253 rural Indonesian children that investigated the factor structure of the IT-HOME items. After factor analysis, Zeitlin and Satoto (1990) constructed five adapted subscales: Emotional and verbal responsiveness, Play materials, Social/cultural, Acceptance, and Involvement and removed 9 items from the original IT-HOME (Appendix E for item distribution and internal consistencies).

To explore the reliability of the IT-HOME scales in our sample, we compared the intercorrelations of the adapted subscales with the intercorrelations of the original subscales and examined differences in the internal consistencies of both versions. The intercorrelations of the subscales of the IT-HOME can be found in Table 6-1 of Chapter 6. In both versions, only a few significant intercorrelations were found. In both versions, Play materials was positively and significantly related to Involvement. With regard to the Zeitlin and Satoto subscales, Emotional and verbal responsivity was positively related to Social/ Cultural ( $r = .30, p < .05$ , one tailed). In the original IT-HOME, Emotional and verbal responsivity was not related to another subscale. Furthermore, Acceptance was negatively related to Play materials ( $r = -.28, p < .05$ , one tailed) in the adapted version whereas they were not related in the original version of the IT-HOME. According to Zeitlin and Satoto, the original subscale of Acceptance was not culturally appropriate. However, results in the present Indonesian sample show that, in relation to the overall quality of the home, the Zeitlin/Satoto version of Acceptance was not a more valid aspect of the quality of the home than the original subscale.

In our study, the internal consistencies of the original IT-HOME subscales were compared with those of the adapted version. On average, the internal consistencies proved to be higher if the original subscales were applied with the exception of Emotional and verbal

Investigation of intercorrelations between subscales showed few significant results (Table 6-1 in Chapter 6). The homogeneity of the IT-HOME in this sample was moderately low (Cronbach alpha of .52). Investigation of the internal consistencies of the separate subscales showed similar results (Appendix D). The subscale Variety of stimulation had the lowest Cronbach alpha of .14 whereas Organisation of the environment had the highest alpha of .45. In general, only a few items contributed significantly to the homogeneity of the subscale. These results show the IT-HOME not to be very reliable in this sample. Results with regard to this scale should be interpreted with caution.

### Preschoolers

For Indonesian preschoolers, the quality of the home environment is important to assess. For most of them, home is the most salient place to develop because it is still rare for Indonesian preschoolers to enter kindergarten.

Procedure. The procedure to assess the quality of the home environment of preschoolers was similar to that for infants and toddlers. The quality of the home was assessed for 37 preschoolers between 37-72 months of age.

Instrument. The quality of the home environment of preschoolers was measured with the Early Childhood HOME (EC-HOME) of Caldwell and Bradley (1984). The EC-HOME was translated from English to Indonesian by the first author with the aid of a fluent English speaking Indonesian student. The EC-HOME contains 55 items clustered into eight subscales: Toys and learning materials (i.e., access to stimulating materials), Language stimulation (i.e., positive verbal exchanges and stimulation), Physical environment (i.e., safe, clean, and conducive to development), Pride and affection (i.e., positive physical and verbal encouragement), Academic stimulation (i.e., encouragement to learn), Encouragement of maturity (i.e., modeling of social behavior), Variety of experiences (i.e., variety in outdoor and indoor activities), and Acceptance (i.e., absence of punitive responses).

Reliability analysis showed the internal consistency of the EC-HOME to be acceptable (Cronbach alpha of .85). The internal consistencies of the separate subscales were somewhat diverse: the lowest alpha was .26 for Acceptance and the highest .76 for Toys and learning materials (see Appendix F). In general, Toys and learning materials, Language stimulation, Pride and affection, and Encouragement of maturity proved to be moderately to acceptable homogeneous subscales. The remaining subscales were less

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responsivity and Play materials. Emotional and verbal responsivity and Play materials had higher Cronbach alpha's in the adapted version (resp. .53 and .43) than in the original version (resp. .25 and .33). However, Involvement had a negative Cronbach alpha (-.14) in the adapted version and a positive alpha (.33) for the original IT-HOME subscale. The overall internal consistency of the adapted version was .41. This was lower than the internal consistency of the original IT-HOME ( $\alpha = .52$ ). We decided to use the original IT-HOME for reasons of comparability and because we did not find enough evidence in favor of the adapted version. It is also a matter of debate whether subscales should be very consistent in such a small and relatively poor sample that was not selected to test the reliability and validity of the instrument under use.



reliable and subsequent results should be interpreted with caution.

### Attachment Security

The security of the child's attachment relationship with its mother has been assessed by means of the 'Strange Situation': a procedure developed by Ainsworth and Wittig (1969).

Procedure. After the structured play session, the mother and child remained in the same room. The room resembled a living room with two chairs and toys on the floor. The mother and child were then observed in the Strange Situation. The Strange Situation consists of eight episodes with situations varying in the degree of stress for the child by twice being separated and reunited with the caregiver and being introduced to a strange person (see Ainsworth et al., 1978 for a description of the episodes). In general, episodes two till eight have a duration of three minutes. As expected, we had to curtail the separation episodes in the Strange Situation in a number of cases (as prescribed by Ainsworth et al., 1978) because of the high levels of distress demonstrated by the children.

A research assistant instructed the mothers in order to make sure that the mothers fully understood the instructions. According to the prescriptions, these assistants signaled to the mother and stranger whenever a change of episodes was due. After receiving the instructions, mothers often remarked that the child was not used to being left alone. In general, Indonesian mothers try to avoid stressful situations for their children since they believe it to be harmful for a young child (e.g., Geertz, 1961). Some mothers were trying to reduce the stress of the situation by putting the child in such a position from the start of the episodes that the child would not notice the mother leave. A few mothers had obviously not understood the instruction and wanted to leave as soon as the stranger entered. In part, this behavior reflected their own anxiousness. There were also a number of cases in which the mother knew the instruction but did not leave the room because she only wanted to leave unobtrusively. These mothers were busy to divert the attention of the child to the toys for an extended period or were breastfeeding the child. This often took longer than the advised three minutes. In Indonesia, children are breastfed on demand until about two years of age. Children are active in grabbing the breast themselves. Although mothers tried to comply with our request not to give the breast, it was difficult for them to forbid the breast to their child during the procedure. Some mothers tried to withhold it at first but then the breastfeeding would often take longer. A refusal of the mother often lead to angry and very fussy behavior of the child who was not used to being refused the breast. While breastfeeding, all mothers were trying to attract the attention of the child to the toys by making noises with the toys and offering toys.

For every assessment, the same stranger participated. She was a student at the developmental psychology department of UNPAD.

Instrument. Each dyad was videotaped in the Strange Situation. The attachment



behavior of the child towards its mother was rated according to the procedure of Ainsworth et al. (1978) by Dymphna van den Boom, a highly trained and experienced observer, who was blind to all other information on the child and the family. The children were classified as secure (B), insecure-avoidant (A), or insecure-resistant (Ainsworth et al., 1978). Occurrence of insecure-disorganized behavior (D) was also rated on a nine-point scale (Main & Solomon, 1990). Besides a main classification, subclassifications were given to the A, B, and C classified children.

### Research Questions

In light of the next empirical part, the general research questions will be summarized here in the order in which they will be dealt with in the next four empirical chapters:

- Which commonalities across Indonesian caregiving contexts can be found and what are intra-cultural differences underlying the child's environment?
- What is the relation between the parenting context and the quality of maternal support in Indonesia?
- What differences can be found in the quality of the Indonesian immediate environment for a child in relation to gender, age, and socio-economic status?
- What is the relation between attachment security of Indonesian children, the quality of support provided by their mothers, and the parenting context?

## Chapter 4

### The Context of Parenting in two Indonesian Urban Communities

#### Abstract

A study in 80 Indonesian families aimed to (a) construct ecologically valid variables that constitute potential sources of stress and support for Indonesian parents, (b) examine the interdependence of these variables, and (c) intra-culturally compare the context of parenting in low SES families and low-middle SES families. On the basis of Bronfenbrenner's ecological model, we distinguished three contexts of parenting and five domains, i.e., family structure, education, wealth, health, and residential mobility. Data were obtained from a census, health records, interviews, and two subscales of the HOME. Education and wealth variables were highly interrelated over and between contexts. Health variables differentiated the two communities significantly. The results suggest that low SES families experience more contextual stress than low-middle SES families, which may affect effective implementation of developmental programs.

In the past ten years the development of children from 0 till 5 years of age ("BALITA") has become a policy concern in Indonesia. Indonesian policy makers view parents as important mediators in fostering child development. Therefore, most programs for BALITA make efforts to inform and engage parents with regard to their children's development. BALITA programs aim to enrich the environment of young children of low income families by training mothers and other members of the family "to ensure the norms for a small and happy family" (Sadli, 1986). However, the circumstance that these developmental programs are often based on middle-class oriented western ideals makes them difficult to implement (Ambert, 1994; Baswedan, 1986; Sadli, 1986). The implementation of BALITA programs stumbles over assumptions that might not hold for low income families. These programs assume that children are healthy, that mothers are able to attend weekly sessions, that mothers are intelligent enough to receive lengthy instructions, and that parents are able to construct toys for their children (Sadli, 1986). The present study investigated intra-cultural differences in the Indonesian caregiving contexts of families with young children. Its aim was to provide an empirical basis for Indonesian developmental programs. This study also aimed to further understanding of the patterns of similarities across caregiving contexts as well as those of differences underlying the child's environment.

First of all, a study of the context of parenting in a non-western society requires a conceptual framework. Various models have been proposed that emphasize different determinants of parenting and child development (Belsky, 1984; Bronfenbrenner, 1979; Riksen-Walraven, 1983; Super & Harkness, 1986; Whiting & Whiting, 1975). Because Bronfenbrenner's ecological model appears to offer the broadest contextual approach, I decided to use an adapted version of this model as an aid in describing the context of

parenting in Indonesia. The model envisages context as a set of concentric rings, each ring influencing those adjacent to it. The individual, in this case the parent, is placed at the centre of the model. Surrounding the parent are the immediate environment, the social and economic context, and the cultural context. The immediate environment contains all the settings, the persons, and the physical objects with which the individual has direct contact (Sroufe, Cooper & DeHart, 1992). The social and economic context consists of social and economic features of the family network that can not directly be observed in the immediate environment. The cultural context is defined as beliefs, values, and guidelines for child rearing behavior that family members tend to share with others in the (sub)cultural setting. Variables in these contexts can be placed under different headings. In this research, I have identified five domains that encompass relevant variables that might influence the quality of parenting. These domains are family structure, education, wealth, health, and residential mobility. Bronfenbrenner's adapted model can be visualised as a round pie consisting of three concentric contexts, each cut in five pieces representing the five domains (see Figure 4-1).

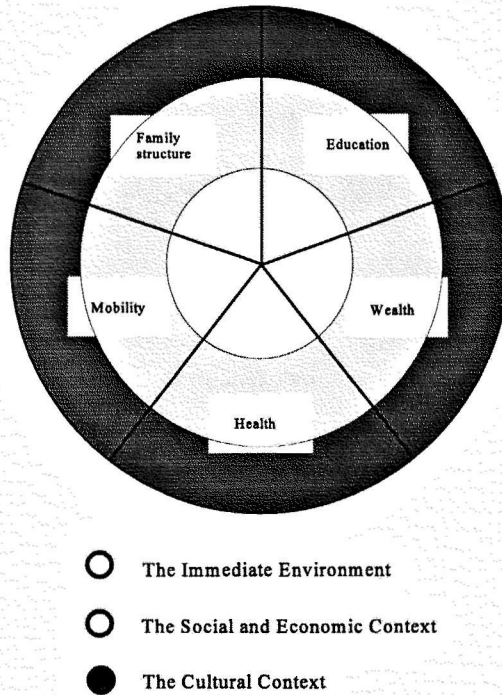
Family structure is defined as a family framework that consists of an overall form, size, and members related through blood or marriage who have roles determined by age, sex, parity, and their relationships to one another (Bossard & Boll, 1960). Family structure has a bearing on the quality of parenting. Marital instability is negatively related to the quality of parenting (Conger et al., 1990). Family extendedness and role flexibility (e.g., multiple caretaking) are favored in some families in order to compensate for structural disadvantages like poverty (Al Awad & Sonuga-Barke, 1992; Bronfenbrenner, 1986; Harrison, Wilson, Pine, Chan, & Buriel, 1990). Nuclear family size has fairly strong effects on mother-child relationships (Gecas, 1979; Minturn & Lambert, 1964; Tietjen, 1989). Small families have a more positive home environment and more desirable child development outcomes than large families (Garrett, Ng'andu, & Ferron, 1994).

Education has been defined as the stimulation of systematic development of a person in a formal system of schooling. Education is positively associated with stimulating home environments (Bradley et al., 1989; Church & Katigbak, 1991) and outdoor activities (Bourdieu, 1973). In general, the level of education of parents determines to a large extent the quality of the parents' behavior towards their children as well as their child rearing values. The educational background of relatives is often related to the parental level of education.

Wealth is broadly determined by four social-economic status characteristics: income, occupation, house type, and dwelling area (Bossard & Boll, 1960). Poverty is negatively associated with parental behavior (Bradley et al., 1989; Conger, Ge, Elder, Lorenz, & Simons, 1994; Farran & Haskins, 1980; Garrett et al., 1994; Skinner, 1985) and developmental outcomes of children (Bradley et al., 1994b; Stevens & Duffield, 1986). The level and type of occupation of the parents influences child rearing attitudes (Cotterell, 1986; Gecas, 1979; Greenberger, O'Neil, & Nagel, 1994). House type refers to crowding, quality of housing, and organisation of the physical environment which is related to parental support (Bradley et al., 1989; Wachs et al., 1993). Poverty in the

**Figure 4-1**

**Contexts and domains: A conceptual framework**



dwelling area is found to negatively affect the quality of child rearing (Gecas, 1979).

Health is defined in terms of health history and nutrition. The former relates to health problems and mortality rate, while the latter relates to nutritional intake and nutritional status. Health is directly and indirectly related to the quality of parenting and child development (Bradley et al., 1994b; Scheper-Hughes, 1985; Wachs et al., 1992). Directly, healthy parents and children have more energy available for stimulating interactions. Indirectly, health in the family is supposed to improve because of the positive relation between the quality of parenting and preventive health activities of the parents such as prenatal care, use of contraceptives (Cogswell & Sussman, 1979; Hull & Hull, 1992), providing nutritious meals (Pollitt, 1983; Myntti, 1993; Wachs et al., 1992; Zeitlin, 1991), and regular attendance to health clinics for vaccinations and informational support (Alderman & Garcia, 1994; Tapia Uribe, LeVine, & LeVine, 1993).

Residential or geographical mobility is defined as changes in location or residence relative to place of birth (Bossard & Boll, 1960). Living in the same community for a long period increases maternal warmth towards and overall acceptance of children (Rohner, Hahn, & Koehn, 1992). Relatives who live in close proximity of the family may contribute to the quality of parenting because they can act as social support

networks (Larner, 1990). Social support networks have an indirect influence on parenting and child development as moderators of emotional well-being of parents (Simons, Lorenz, Wu, & Conger, 1993; Spieker & Bensley, 1994; Stevens, 1988).

The domains are interrelated in numerous ways. For instance, it has been found that the extent to which a mother has received education influences the way she handles preventive health care such as prenatal care, and use of contraception (Colclough, 1982; Tapia Uribe et al., 1993). In case of effective use of contraceptives, education can also relate to a family structure variable like family size. The negative relation between poverty and marital stability is an example of the interrelatedness between wealth and family structure (Conger et al, 1990). The present study distinguished specific elements in the caregiving environment in order to see which elements are interrelated and which dimensions characterize the Indonesian parenting context.

In Indonesia a wide gap exists between lower SES families and higher SES families (Zevalkink, 1990). In higher SES families, the context of parenting differs dramatically because these families often hire untrained child caretakers and other household assistants taking care of the children and household, often day and night. In the present study I concentrated on low and low-middle SES families for two main reasons. First, because this would provide us with intra-cultural variation in a comparable situation. The second reason is that these groups --in contrast with higher SES groups-- are mostly the target of developmental programs. The two SES groups in the present study originated from two different urban communities or 'kampungs'. Guinness (1986, p.7) has described the urban kampung as a residential area, situated behind a facade of big houses located at the streetside, characterized by a large proportion of substandard housing among a maze of narrow winding pedestrian pathways, and occupied by a densely settled population. A kampung has a minimum of urban facilities such as electricity, water supply, garbage collection, drainage, and sewerage. Efforts to improve conditions have to be financed and executed locally. SES is often used as an independent variable in developmental studies without taking into consideration that it is defined by and, in its turn, defining a number of factors in several domains including living circumstances and community (Turner, 1988). With the aid of the variables distinguished in the three contexts and five domains I tried to provide a detailed description of the context of parenting in the two socio-economically different urban communities.

The present study investigated intra-cultural differences and similarities in the family ecology, the social and economic circumstances, and the values and beliefs underlying parenting in Sundanese families with a relatively low socio-economic status. This was done in three steps. First, I constructed variables for each of the three contexts and five domains. Measures were assigned to a certain domain and context in accordance with Bronfenbrenner's adapted model and the definition of the domains. I expected that the measures representing a particular domain in a particular context would be interrelated and form one construct. Second, I investigated the interdependence of the constructed variables within and between domains. The interdependence between

different domains and contexts was investigated in order to find out whether higher-order constructs would emerge describing the Indonesian context of parenting. It was expected that some domains would be highly interrelated and that other domains like residential mobility would describe more independent dimensions of the Indonesian context of parenting. Third, I compared the two urban communities, using the variables in the different contexts and domains, in order to investigate how the context of parenting differed between these two groups. For some socio-economical variables like income, education, and occupation the comparison of the two communities would only be a validation of the selection process because the families in the two communities were selected on these variables. But other variables in the social and economic context would yield a more detailed picture of the differences between the two SES groups in this area. Moreover, I expected that variables in the other domains, especially variables in the cultural context, would also differentiate families in the two communities. It is often found that families from divergent SES differ in parental values and attitudes.

## Method

### Research setting

The Indonesian islands are inhabited by numerous ethnic groups of which the Javanese are the largest. The present study investigated the Sundanese context of parenting. The Sundanese are an ethnic group occupying the western part of the island of Java. The two communities or 'kampungs' in the present research were located approximately one kilometer apart on the slope of a hill in the northern outskirts of Bandung, West Java. At this research site population density was around 8,960 persons per square kilometer in 1990 (Pemerintah, 1990). One of the communities, which was called Loompoor, was considerably poorer and more rural in character than the other, called Sheraton. Loompoor was located farther from the main road. For this reason, land scarcity was not as extreme yet as it was in Sheraton. In Loompoor there were more unused plots and rice fields for children to play on. In Sheraton children had to play on small paths, on a small but busy road, or on a volleyball field. Compared to Loompoor, in Sheraton roads were in a much better condition and communal efforts to repair or maintain communal property were faster. In effect, Sheraton looked cleaner and more structured than Loompoor.

### Subjects

The sample consisted of 80 families. There were 48 low SES families, all living in Loompoor, and 32 low-middle SES families, all living in Sheraton. Low SES was defined by a family income between 80,000 and 200,000 Rupiah per month; parents were unskilled or semi-skilled labourers; and parents had primary school as maximum level of education. Low-middle SES families had a family income between 200,000 and 500,000 Rp/month; parents had skilled labour or white-collar jobs; and parents had high school as maximum level of education. The population of West Java has a larger



proportion of low SES families than low-middle SES groups, which is also reflected in the present sample. All families adhered to the Islamic religion.

The sampling strategy involved some general selection criteria: the families had to be of Sundanese ethnicity, belong to one of the two SES-groups, and had to have one or more children under six years of age (BALITA). Addresses were obtained from local health centres and a door-to-door census. In Loompoor I only found low SES families after a door-to-door census in two adjacent administrative units that listed 180 families of which 99 families with BALITA. In Sheraton I aimed to find low-middle SES families. Here, BALITA were scattered over seven adjacent administrative units. In this case, I relied on local informants working in child care to point out families with BALITA. A list of 80 families with BALITA was provided of which 38.75% families were of low SES and another 21.25% were not eligible for various reasons (e.g. ethnicity, moved). No family refused to participate. Most families had already met the first author in a local Health Registration Centre, where she started working as a volunteer preceding data collection.

### Procedures and Instruments

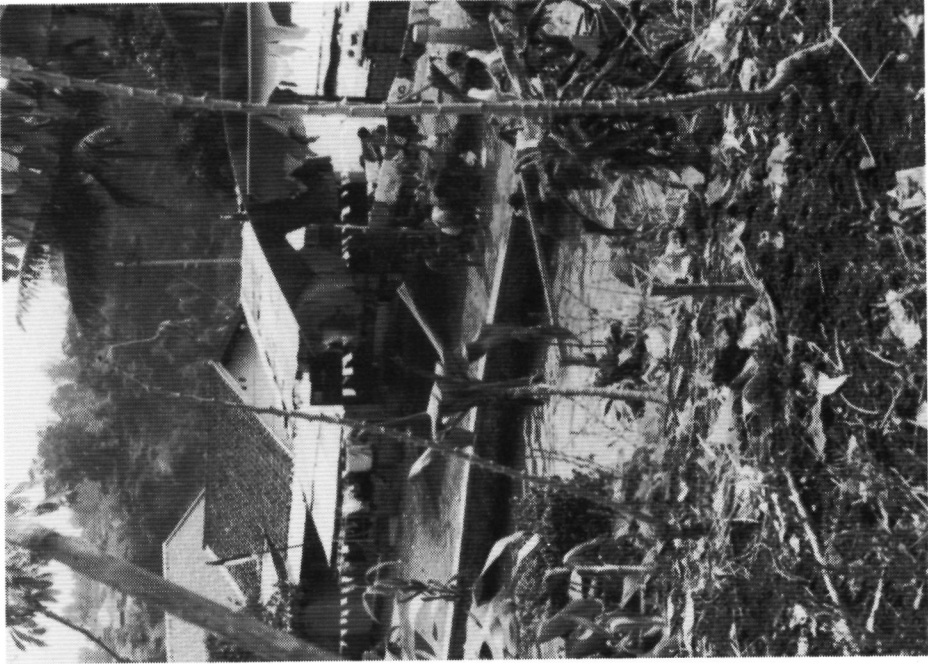
Psychological as well as anthropological methods were used in order to safeguard methodological validity. In practice this meant that formal interview data were often verified in a more relaxed situation, using what anthropologists refer to as 'participant observation'. I made an average of three formal visits (range 2-5) per family, each of which lasted about 1.1 hours per visit. Participant observation took place regularly. The parenting context was assessed by means of the following instruments.

Census. The author approached the families and conducted a census at her first visit. Mothers acted as respondents although other family members could be present at the time of the interview. The census contained ten questions on family structure, five on education, four on wealth, three on health, and five on residential mobility. Most of the census data were basic measures of the five domains in the immediate environment and the social and economic context.

Health records. The domain of health was investigated more deeply by inspection of local records of health registration. The health records came from a local Health Registration Centre called a "POSYANDU". Families with BALITA visited this centre once a month to weigh their young children, receive vaccinations, consult a doctor, and receive a nutritious meal. The organisation and registration was in the hands of local volunteers. The records were checked and cross-checked in order to obtain reliable data. Health records were used as measures in the immediate environment and social and economic context.

Values and attitudes interview. As a third instrument a semi-structured interview about values and attitudes was used. This interview generally took place during the third visit. In all families the mother was the respondent. It contained 8 topics with several open-end-questions. These interviews took place with a subsample of 32 mothers in Loompoor and 23 mothers in Sheraton. Not all families were interviewed because of time limits. The answers were categorized according to the five domains and





Picture 10  
Loompoor: More rural



Picture 11  
Sheraton: More structured

constituted measures in the cultural context.

HOME. To assess aspects of wealth in the immediate environment two subscales of the "Home Observation for Measurement of the Environment" (HOME) Inventory for Infants and Toddlers (0-3 yrs.) and two of the HOME Inventory for Preschoolers (3-6 yrs.) (Caldwell & Bradley, 1984) were utilized. The HOME was translated into the Indonesian language and administered according to standard procedure by one of the research assistants and the first author. Of the HOME for infants and toddlers the scales 'Play materials' and 'Organization of the environment' were used. The scales 'Toys and learning materials' and 'Physical environment' came from the HOME for preschoolers. Although not all subscales of the HOME may be appropriate for non-western settings, the presently used subscales appear to be applicable in Indonesia (see also Zeitlin & Satoto, 1990).

### Measures

Family structure. In the immediate environment family structure measures were number of siblings, age of the parents, and household size (defined as the number of people living in the same house and sharing meals). Family structure in the social and economic context was measured by form of living arrangement (nuclear/ extended), number of marriages of the parents, and number of persons in the family of origin of the parents. Family structure in the cultural context was measured as ideal number of children, preference for a form of living arrangements (nuclear/ extended), and sex differences in child rearing (no opinion/ no sex differences/ distinctive sex differences).

Education. Education measures in the immediate environment were parental level of education, and preschool attendance of the children whereas level of education of extended family members was selected to reflect education in the social and economic context. In order to reduce data about education level of aunts, uncles, grandmothers, and grandfathers the average educational level of paternal and maternal parents and siblings was computed. As a cultural context measure of education, parents' preference for preschool education (not interested/ moderately interested/ highly preferred), high-school aspirations for older children (no aspiration/ High School at most/ as high as possible), and preference for religious education (not valued/ moderately valued/ highly valued) were selected.

Wealth. In the immediate environment wealth was measured by number of consumer durables, safety of the physical environment, provision of play materials, quality of housing (bad/ average/ good), and living space per person (in m<sup>2</sup>). The number of consumer durables was the sum score of six items. Total amount of income and level of occupation were chosen as measures of wealth in the social and economic context. The cultural context of wealth contained measures like preference for outdoor activities (no preference/ moderately preferred/ highly preferred), remembering a child's birthday (no/ yes), and celebrating a child's birthday (no/ yes).

Health. The domain of health in the immediate environment was represented by five measures: prevalence of life-threatening health problems (no problems/ one person in family/ two or more persons/ one person died/ two or more died), actuality of

health problems (never/ past/ present), nutritional status (severe/ bad/ moderate/ good), expenditures on basic needs (e.g., rice, eggs), and expenditures on protein-rich food (e.g., milk, meat). In the social and economic context health measures were sanitary conditions in the house (no bathroom/ bathroom without water tap/ bathroom with water tap), number of vaccinations, and use of contraceptives (no/ yes). In the cultural context I identified prenatal care attitudes (not necessary/ a few months before birth/ during entire pregnancy) and preference for a professional versus traditional midwife as health measures.

Residential mobility. Mobility measures in the immediate environment included number of times moved, time spent in present place of residence, and distance to dwellings of relatives (same house/ in neighborhood/ not near). In the social and economic context mobility was measured by place of origin of the family (rural/urban), and distance of place of birth of both parents from present location (this neighborhood/ surrounding neighborhoods/ other area of Bandung/ outside Bandung). In the cultural context residential mobility was measured by the aspired goal of mobility (no aspiration/ better house/ better neighborhood).

## Results

### Construction of contextual variables

Principal component factor analyses was used in order to reduce the number of measures and to construct variables representing the five domains in each of the three contexts. It is commonly used as a data reduction instrument when no hypotheses can be formulated about the dependency among different measures. Factor analysis treats all variables as a dependent set and results in factor scores that can be used in further analysis. After investigating solutions with different rotation strategies, varimax rotation was found to be most appropriate<sup>1</sup>. In the next section, I present the measures per domain and per context and give the factor loadings in brackets (see Appendix G for a complete presentation of the factor analyses and factor loadings).

Family structure. Factor analysis of the four measures of family structure in the immediate environment yielded one factor ('Maturity') explaining 67.8% of the variance. Families scoring high on 'Maturity' have more children (.90), more household members (.54), and older parents (.90) compared with families scoring low on this factor. The five family structure measures in the social and economic context loaded on two factors explaining 57.1% of the variance (respectively 35.1% and 22.0%). The first factor, 'Remarriage', was formed by positive loadings of the number of marriages of both father (.88) and mother (.82) and a negative loading of the size of the paternal family of origin (-.51). The second factor of family structure, 'Extendedness', had positive loadings of

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<sup>1</sup> The main disadvantage of varimax rotation is that the factors are forced to be independent. Therefore, I also tried oblique rotation but that did not change results.

extendedness (.74) and size of the maternal family of origin (.71). Families with high scores on the first factor can be characterized as families where both parents have been remarried and fathers come from small families. High scores on the second factor describe families living in an extended family form with mothers from large families. Factor analysis on three family structure measures in the cultural context yielded one factor, called 'Traditionality'. Families scoring high on this factor wish to have many children (.62), want to live in a nuclear family instead of an extended family form (-.52), and rear boys and girls differently (.75). This factor explained 40.6% of the variance.

Education. The three measures of education in the immediate environment formed one factor 'Family Education Level' explaining 65.7 % of the variance. For families with a high score on this factor it means that both father (.90) and mother (.92) have a higher level of education and their children go to preschool (.57). Four education measures in the social and economic context gave one factor of 'Relatives' Education Level' with positive loadings explaining 42.2% of the variance. In families with a high score on this factor both father and mother have parents (respectively .72 and .54) and siblings (respectively .71 and .61) with a higher level of education. In the cultural context three measures of education loaded on two factors that explained 80.6% of the variance (respectively 46.9% and 33.7%). The first factor, 'Educational Aspirations', has positive loadings of preference for preschool education (.83) and high school aspirations (.84). The second factor, 'Religious Education', is defined by preference for religious education (.99). A high score on the first factor shows us families who prefer preschool education and want their children to have as much High School education as possible. Families scoring high on the second factor prefer religious education.

Wealth. In the immediate environment factor analysis revealed that all five measures loaded positively on one factor, 'Physical Wealth' (explained variance 57.2%). Families scoring high on this factor are characterized by possessing consumer durables (.87), providing their children with play materials (.47), having a safe physical environment (.72), living in a house constructed of solid materials (.87), and having more living space per person (.78). In the social and economic context factor analysis on three measures revealed a pattern of high loadings of total amount of income (.80) and occupational status of father (.79) and mother (.61) on the factor 'Economic Wealth' (explained variance 54.5%). In this context families with high scores can be described as having a higher income and both parents working on a higher occupational level. In the cultural context three wealth measures loaded on one factor, 'Child-centered Festivities', that explained 71.6% of the variance. Families with a high score on this factor prefer outdoor activities (.86), remember the birthday of their children (.80), and celebrate their children's birthday (.88).

Health. The four health measures in the immediate environment formed two distinctive factors that explained 59.0% of the variance (respectively 36.3% and 22.7%). The first factor, 'Health Problems', was formed by the prevalence of life-threatening health problems (.92) and the actuality of these health problems (.90). The second factor, 'Nutrition', consisted of nutritional status (.77), less expenditures on basic needs (-.50), and more expenditures on protein-rich food (.54). High scores on the first factor show

families where health problems occur. Families with high scores on the second factor can be characterized as having children with a higher nutritional status, spending more on protein-rich foods and less on basic needs. In the social and economic context three health measures formed one factor of 'Preventive Health Activities' (explained variance 47.3%). Families scoring high on this factor have a bathroom (.73), have vaccinated their children (.78), and use contraceptives (.53). The two health measures in the cultural context loaded positively on one factor, 'Preventive Health Attitudes', explaining 72.7% of the variance. A high score on this factor is given to families that prefer regular prenatal care (.85) and giving birth in the presence of a professional instead of a traditional midwife (.85).

**Residential mobility.** Factor analysis on three measures of mobility in the immediate environment yielded one factor, 'Mobility of the Family', explaining 54.5% of the variance. This factor was formed by positive loadings of number of times moved (.82), distance to relatives (.76), and a negative loading of length of residence in present

Table 4-1  
Pearson correlations between contextual variables within the five domains

Variables per domain	Immediate environment		Social and economic context	
	i or i1	i2	s or s1	s2
Family structure:				
Maturity (i)				
Remarriage (s1)	.19			
Extendedness (s2)	-.05			
Traditionality (c)	.17		.23	-.20
Education:				
Family education level (i)				
Relatives education level (s)	.64**			
Educational aspirations (c1)	.69**		.53**	
Religious education (c2)	.03		.12	
Wealth:				
Physical wealth (i)				
Economic wealth (s)	.69**			
Child-centered festivities (c)	.54**		.60**	
Health:				
Health problems (i1)				
Nutrition (i2)				
Preventive health activities (s)	-.01	.26		
Preventive health attitudes (c)	-.06	.30*	.52**	
Residential mobility:				
Mobility of the family (i)				
Urban origin (s1)	-.31**			
Origin of father (s2)	.19			
Mobility aspirations (c)	.14		.18	.21

Note. i, i1, or i2 = variables in the immediate environment; s, s1, or s2 = variables in the social and economic context; c, c1, or c2 = variables in the cultural context. N = 80. \*  $p < .05$ ; \*\*  $p < .01$ .

place (-.62). Families scoring high on this factor have more often changed their place of residence, live at a distance from their relatives, and are newcomers in the present place of residence. The three mobility measures in the social and economic context formed two factors explaining 79.1% of the variance (respectively 41.5% and 37.6%). The first factor, 'Urban Origin', is composed of a positive loading of urban place of origin (.87) and a negative loading of distance of maternal place of birth (-.62). The second factor, 'Origin of Father', has a positive loading of distance of paternal place of birth (.89) and a negative loading of distance of maternal place of birth (-.60). Families with high scores on the first factor come from an urban place of origin and have mothers born nearby the present place of residence. Families scoring high on the second factor can be characterized as living far from father's place of birth and near mother's place of birth. Mobility in the cultural context was only measured by aspired goal of mobility which was labeled as 'Mobility Aspirations' ( $M=2.38$ ,  $SD=0.53$ ). Families with a high score on this measure want to live in a better house and a better neighborhood.

Summarizing, in this section I used factor analysis to construct variables representing the five domains located in the three contexts. In all but four instances factor analysis resulted in a one-factor solution. The resulting factor scores constitute variables of the five domains and three contexts in further analysis.

#### Intercorrelations of variables within domains across contexts

The results in Table 4-1 show that variables in the three contexts of family structure were not significantly intercorrelated. This means that maturity of the family is not related to remarriages of the parents, extendedness of the family, and traditionality of family structure values. Within the domain of education three of the four variables were significantly intercorrelated. Families with a higher educational level have relatives with a higher educational level and aspire high-level education for their children. The second education variable in the cultural context ('Religious education') is independent from the other education variables. In the domain of wealth all variables were significantly intercorrelated: physical wealth goes hand in hand with economic wealth and child-centered festivities. Health variables were also intercorrelated, except for 'Health Problems' in the immediate environment. Families scoring high on 'Nutrition' tend to have higher scores on preventive health activities and have a significant more preventive health attitude. Families with a preventive health attitude also show preventive health activities. In the domain of mobility only one significant correlation existed showing that mobile families more often come from a rural place of origin.

#### Intercorrelations of variables across domains and contexts

Next, this study investigated the relation among variables across domains and contexts by means of a second-order principal component analysis on the 19 first-order factors. This analysis resulted in a 7-factor solution with eigenvalues greater than 1.00 and a cumulative explained variance of 76.7%. Of these seven factors three factors were defined by single variables. The three-, four-, five-, and six-factor solutions were explored. In the three-factor solution, one of the variables ('Remarriage') did not load on



Table 4-2

A second order principal components analysis on first order contextual variables<sup>1</sup>

Variables per domain	Factor 1 Social climbing	Factor 2 Settled- ness	Factor 3 Religious and extended	Factor 4 Marriage and health problems	Factor 5 Urban nutrition
Family structure:					
Maturity (i)	.17	<u>.88</u>	.08	.11	-.06
Remarriage (s1)	.03	-.09	-.07	<u>.85</u>	-.10
Extendedness (s2)	.18	.04	<u>.57</u>	-.03	-.03
Traditionality (c)	<u>-.42</u>	.18	-.24	.26	-.30
Education:					
Family education level (i)	<u>.87</u>	-.05	.23	-.13	.22
Relatives education level (s)	<u>.69</u>	-.15	.12	.19	.26
Educational aspirations (c1)	<u>.81</u>	.16	-.15	-.04	.11
Religious education (c2)	-.06	.15	<u>.74</u>	-.17	-.03
Wealth:					
Physical wealth (i)	<u>.71</u>	.39	.08	-.08	.30
Economic wealth (s)	<u>.81</u>	.26	.17	.10	-.22
Child-centered festivities (c)	<u>.84</u>	.01	-.00	-.31	-.04
Health:					
Health problems (i1)	-.22	<u>.53</u>	.09	<u>.55</u>	.17
Nutrition (i2)	.37	.03	-.03	.08	<u>.76</u>
Preventive health activities (s)	<u>.54</u>	<u>.60</u>	.11	-.12	.02
Preventive health attitudes (c)	<u>.70</u>	.25	.09	<u>-.42</u>	.09
Residential mobility:					
Mobility of the family (i)	-.02	<u>-.57</u>	.10	.12	-.15
Urban origin (s1)	-.04	.15	-.06	-.10	<u>.75</u>
Origin of father (s2)	.04	-.15	<u>.72</u>	.13	.01
Mobility aspirations (c)	<u>.62</u>	-.02	-.01	.28	.00
Eigenvalue	5.98	2.01	1.57	1.49	1.32
Explained variance (%)	31.5	10.6	8.3	7.9	6.9

Note. i, i1, or i2 = variables in the immediate environment; s, s1, or s2 = variables in the social and economic context; c, c1, or c2 = variables in the cultural context. N = 80. <sup>1</sup> Loadings greater than .40 are underlined.

any of the factors. With the four-factor solution this variable reappeared while the other variables still grouped as they did in the three-factor solution. The five-factor solution split two variables, 'Urban Origin' and 'Nutrition', from earlier components and brought them together into one factor. In the three- and four-factor solutions these two variables had high loadings (> .40) on at least two factors. In the six-factor solution an extra factor was formed by one variable 'Extendedness'. I chose the five-factor solution explaining 65.2% of the variance, because no variable was dropped as in the three-factor solution, it accounted for the uniqueness of some loadings, and still grouped more variables than the six- and seven-factor solutions. Results of the five-factor solution are shown in Table



4-2.

The first component contains 10 first-order factors of which 8 had unique loadings. Families with high scores on this factor have a higher level of education, are wealthier, prefer a modern family form, have preventive health attitudes and want to live in a better neighborhood. This factor was labeled 'Social Climbing'. The second component has two out of four variables with unique loadings. Families with a high score on this factor are mature, are not mobile, have experienced health problems, and are active in preventive health care. I have labeled this factor 'Settledness'. The third component is determined by three unique variables. Families living in an extended family form more often prefer religious education, and have fathers originating from another area. This factor is called 'Religiousness and Extendedness'. The fourth component consists of one unique loading of the variable 'Remarriage'. A high score on this factor depicts families in which parents more often remarried, that have experienced health problems, and that do not have a preventive health attitude. This factor was labeled 'Marriage and Health Problems'. The fifth factor is determined by unique loadings of 'Urban Origin' and 'Nutrition'. Families who have a high score on this factor originate from the city and have a better nutritional intake. This factor was called 'Urban Nutrition'.

In sum, education and wealth variables clustered together with all variables in the cultural context. Family structure, health, and mobility variables in the immediate environment and the social and economic context were represented in four factors.

#### Differences between Loompoor and Sheraton

In this section differences between the two communities were analyzed by means of *t* tests. Results are presented in Table 4-3. The two SES groups were predefined on the basis of information regarding income, level of education, and level of occupation of the parents in the present study. This means that the SES groups were expected to differ on the variables representing education in the immediate environment and wealth in the social and economic context. These were indeed the variables discriminating best between the two SES groups. Because variables within the domains of education and wealth were highly interrelated except for 'Religious Education', other education and wealth variables discriminated the SES groups as well. Families in Loompoor were indeed less educated and less wealthy than families in Sheraton. Other differences were found in the domain of health for all contextual variables, with the exception of health problems. It was found that families in Loompoor paid less attention to nutrition and preventive health care than families in Sheraton but did not differ in the prevalence of health problems. The only difference in the domain of family structure was that parents in Loompoor had remarried more frequently. In the domain of mobility it was found that, compared to families in Sheraton, families in Loompoor were more mobile, more often came from a village, and preferred for a better house over a better neighborhood.

In sum, substantive differences between the two communities were found. Low SES families in Loompoor not only were less educated and less wealthy, but they put

Table 4-3  
Differences between Loompoor and Sheraton with regard to contextual variables in five domains

Variables per domain	Loompoor M (SD)	Sheraton M (SD)	t value	n <sup>1</sup>
Family structure:				
Maturity (i)	-.10 (1.22)	.14 (0.84)	-1.06	48/ 32
Remarriage (s1)	.17 (1.22)	-.27 (0.37)	2.37*	48/ 30
Extendedness (s2)	-.13 (0.93)	.21 (1.08)	-1.47	48/ 30
Traditionality (c)	.19 (1.05)	-.26 (0.89)	1.68	31/ 23
Education:				
Family education level (i)	-.58 (0.62)	.88 (0.80)	-9.19**	48/ 32
Relatives education level (s)	-.44 (0.74)	.54 (1.02)	-4.33**	33/ 27
Educational aspirations (c1)	-.57 (0.86)	.75 (0.60)	-6.30**	30/ 23
Religious education (c2)	.04 (0.94)	-.05 (1.08)	0.36	30/ 23
Wealth:				
Physical wealth (i)	-.62 (0.67)	.89 (0.67)	-9.66**	45/ 31
Economic wealth (s)	-.61 (0.51)	.91 (0.85)	-9.13**	48/ 32
Child-centered festivities (c)	-.57 (0.81)	.80 (0.82)	-6.79**	32/ 23
Health:				
Health problems (i1)	.10 (1.06)	-.16 (0.89)	1.02	39/ 26
Nutrition (i2)	-.31 (0.89)	.46 (0.98)	-3.27**	39/ 26
Preventive health activities (s)	-.57 (0.71)	.85 (0.73)	-7.34**	34/ 26
Preventive health attitudes (c)	-.53 (0.84)	.74 (0.71)	-5.90**	32/ 23
Residential mobility:				
Mobility of the family (i)	.18 (1.02)	-.27 (0.92)	1.98*	48/ 32
Urban origin (s1)	-.24 (1.18)	.36 (0.45)	-3.23**	48/ 32
Origin of father (s2)	-.17 (0.99)	.25 (0.97)	-1.86	48/ 32
Mobility aspirations (c)	2.22 (0.49)	2.61 (0.50)	-2.89**	32/ 23

Note. i, i1, or i2 = variables in the immediate environment; s, s1, or s2 = variables in the social and economic context; c, c1, or c2 = variables in the cultural context. <sup>1</sup> Sample size for Loompoor/ Sheraton.

\*  $p < .05$ ; \*\*  $p < .01$ .

less effort in trying to stay healthy, had more often remarried, were more mobile, and more often came from a rural area compared to low-middle SES families in Sheraton.

## Conclusions and Discussion

What have we learned about the Indonesian context of parenting? First, meaningful variables can be distinguished that describe the family ecology, the social and economic circumstances, and the values and beliefs underlying parenting in Indonesian families. Second, the examination of relations within contextual domains

showed that education, wealth, and health represent strongly interrelated dimensions of the Indonesian context of parenting. Third, investigation of relations across domains revealed that education, wealth, and cultural context variables form a broad dimension of the Indonesian context of parenting that not only embraces aspects of the commonly used SES-construct but also values and beliefs underlying parenting in all domains. Fourth, the context of parenting of families living in two socio-economically different communities differed with respect to all five domains examined in the present study. These findings will now be discussed in more detail.

The first aim of this investigation was the construction of variables for each of the five domains in three contexts of parenting. In most cases, measures assigned to a particular domain and context easily formed one single variable. In four instances a second variable had to be constructed in order to provide an appropriate description of that domain. This indicates that sometimes more dimensions may be needed for qualifying a domain properly. For example, preference for religious education clearly represents a different dimension than educational aspirations and health problems a different aspect of general health than nutrition. With regard to the first research aim it might be concluded that it was possible to construct meaningful variables representing theoretically predefined domains and contexts, using Bronfenbrenner's ecological model as a starting point.

The second aim of the study concerned the interdependence of the variables thus constructed. Family ecology, social and economic circumstances, and values and attitudes in the domains of education, wealth, and health appear to be fairly coherent in Indonesian families whereas this is not the case for variables in the domains of family structure and residential mobility. Perhaps domains like family structure are inherently more heterogeneous and multidimensional than domains like education and wealth that map more conveniently onto socio-economic status. Across domains, variables combined into higher-order constructs represent broader dimensions that allow further qualification of the context of parenting in Indonesia. A high score on the dimension of the Indonesian parenting context that comprised most of the contextual variance indicates an educated and wealthy context wherein values and attitudes of family members were oriented towards the development of the family as a whole, reflected in mobility aspirations and preventive health attitudes, and the development of children in particular, reflected in 'modern' family structure values, educational aspirations, and child-centered festivities. Other dimensions of the Indonesian context of parenting inform us about the settledness of the family, about its religiousness and extendedness, about marriage and health problems, and about the nutritional intake of urban families.

The third aim of the present chapter was the intra-cultural comparison of the context of parenting in two socio-economically different urban communities. Intra-cultural differences for variables in the domains of education and wealth validated selection of the families in these communities. Also, differences in the other contexts of education and wealth point to the coherence of favorable versus less favorable conditions

in which parents and children develop. For example, in the domain of wealth in the immediate environment I found that low SES parents have a much more restrictive physical wealth context in which to foster their child's development compared to low-middle SES parents. Similarly, relatives of low SES families can contribute less informational support because they have a lower level of education than relatives of low-middle SES families. Contextual differences in the remaining domains may also influence parenting and child development. The higher incidence of remarriages and mobility in families of low SES might indicate more stress and less stability in the children's home environment. Low SES families pay less attention to health and its prevention. Developmental research has shown that support from social networks may act as a buffer against the negative effects of stress in parenting. The extended family, for example, could be a source of support for the families in Loompoor. The two SES groups, however, did not differ on 'Extendedness'. Thus, there is no reason to believe that social support compensates for poverty in the Indonesian low SES families. It might be inferred from these findings that there are more sources of stress for low SES parents living in Loompoor than for low-middle SES parents in Sheraton. Conditions of stress may influence parenting negatively and can lead to uninvolved parenting in which parents are so overwhelmed with their own stresses and problems that they have less time or energy to devote to child rearing (Maccoby & Martin, 1983). The relation between stress and more aloof and insensitive caregiving in low SES families in Indonesia is still a matter for investigation.

How do the assumptions of BALITA-programs as presently implemented relate to the context of parenting for low SES and low-middle SES families in Indonesia? As outlined in the introductory section of this paper, these programs presuppose a context of parenting in which parents are eager and open to receive information about their children's development. I have found that low-middle SES families have children with good nutritional status, are active in preventive health care --which includes regular attendance of health clinics to receive vaccinations-- have educated parents who can understand lengthy instructions, and are able to invest in educational material. In other words, low-middle SES families fit in the present BALITA-programs because its assumptions match the context of parenting in these families. This is not the case for low SES families. The context of parenting in these families does not seem to meet the basic requirements for proper implementation. This raises the question of how to adapt BALITA-programs. BALITA-programs for low SES families should not only inform and train parents about child development but should also provide information about basic requirements in the caregiving context. Low SES families still seem to lack information related to the distinguished domains. They still prefer large families, although Indonesian family planning programs are considered to be successful at all SES levels (Singarimbun, 1988). Low SES families rarely send their children to preschool. The quality of the play environment was found to be fairly poor in low SES families. Furthermore, nutrition and preventive health care are still a matter of low priority in low SES families. It also became clear that low SES families are highly mobile. An adapted BALITA program would have to include explicit information about the effects of family size on child

development, about the usefulness of preschool education, about the quality of the play environment and how it can be realised with minor expenses, about the advantages of preventive health care, and about ways of forming new social support networks with non-family persons because it can relieve the stress of being newly settled. Although the present study only deals with the Sundanese context of parenting in Indonesia, the present conclusions seem to reflect a general picture of the dimensions relevant in the contexts of parenting in different cultures.

## Interlude I

### The Caregiving Context: Asep and Yulie at Home

The first interlude is about the caregiving context of Asep and Yulie. Asep lives in Loompoor and Yulie lives in Sheraton. In line with Chapter 4, the description of the caregiving context is more or less structured using the identified contexts and domains. The family structure, education, wealth, health, and mobility of the families of Asep and Yulie are outlined. The vignettes will show, for example, that seemingly irrelevant circumstances such as having aunts and uncles can influence the flexibility of the family's resources.



Picture 12  
Playing in front of the warung

#### The Contexts and Domains in Asep's Life

Asep is a three year old boy who lives with his 7-year-old sister and parents in a small house in Loompoor. The parents of Asep are both 30 years of age. They have been married for 10 years. Asep's father does not have any siblings but Asep's father's mother is from a family with eleven siblings of which nine are still alive and live in the



neighborhood. The grandparents of Asep live further uphill in a house where his family lived with them until four years ago. The family of Asep's mother live in the Subang regency, an area about 40 kilometres from Bandung. Asep's mother is from a family of four siblings, two of which are still alive. In other words, Asep has only one aunt (the sister of his mother) and lives in the neighborhood of his father's relatives (i.e., patrilocal residence pattern).

Asep's sister has just entered primary school. The parents of Asep have both finished primary school education. This in contrast to their parents who had either none or almost no primary school education. Asep's parents would like to give Asep the opportunity to go to a high standard primary school. At the present, they are only able to send their daughter to the nearest religious primary school where they have to pay a very small school fee and no fare for transport.

The house consists of one room of about three-by-four metres. The house is built by Asep's parents on the land of his grandmother of his father's side. The walls are made of plaited bamboo mats and it has a mud floor. In the room is a wooden construction that is used as a table and play area in the daytime and used as a bed in the nighttime for Asep, his parents, and sister. The room also contains an old cupboard for items like kitchen utensils and cloths. There are some posters on the wall. The stove is outside. The main source of income is earned by Asep's father. He works as a construction laborer from project to project. An additional income, mostly in food, comes from Asep's grandparents who work as farmers in the nearby fields. In between projects, Asep's father is unemployed and helps his parents in the fields. He prefers construction work since that provides his family with a cash income and some independence from economical support of Asep's grandparents. Asep's mother would like to improve the family's economic situation by working as a servant but Asep's father does not approve since the children will then be under the guidance of relatives while Asep still needs his mother.

Asep's parents are relatively active in family planning. In between pregnancies, they have used contraceptives and also spaced the children in order to be able to better support them. However, they have not been very active in preventive health care. The sister of Asep has not received any vaccinations and Asep has been partly vaccinated. Fortunately, until now Asep and his family only suffered from regular diseases like diarrhoea and influenza. In the first year of his life, Asep was healthy from a nutritional perspective. In the following years, Asep showed a typical pattern of gradually becoming undernourished. He weighed 9.5 kilogram when he was two years old and 10.1 kilogram 12 months later.

In his life, Asep has never moved since his parents only moved once from his grandparents house to the present home four years ago. When financial situations improve, the parents of Asep would like to improve their house step by step and finally replace the bamboo plaited walls with bricks. In this, Asep's parents realise that any improvement is solely dependent upon their own efforts since any support from their relatives may not be expected.

The home of Asep is standing on a sort of peninsula together with two other



houses belonging to some distant relatives of the father of Asep. On one side, the houses are enclosed by a high wall fencing of the propriety of a rich family. On the three other sides, rice fields surround the houses. In order to get to the shops and the road, Asep has to climb a steep path alongside the high wall. In between the houses is a small flat yard where laundry is dried and the children can play. Asep is not allowed to play in the rice fields because it is considered too dangerous for children of his age. For sanitation, the families use a small pond with streaming water that passes through the rice fields. An excerpt from one of the specimen descriptions will illustrate the life of Asep in more detail. It is about twelve o'clock in the morning and several 'cousins', his mother, and his sister are present.

"Asep is going up and off an old armchair that stands in the yard outside his house. From the washing lines, he tries to pull a slendang down. A cousin (about two years old) and Asep are fighting over the slendang. When his mother gets the slendang and hangs it higher in the washing lines, Asep returns to go up and off the chair. Asep goes off the chair and starts to dance while one of his older cousins sings. His two-year-old cousin is chasing Asep around. Asep climbs on a pile of wood and holds to a housepost. Asep goes back to the chair and sits on it. Asep looks at his mother and goes to her. He embraces her legs. His cousin has found a plastic tub. Asep joins him in his game to sit in the tub and play of being bathed. Asep's sister goes inside the house. Asep follows her but his mother tells him to stay outside. He obliges. Asep squats outside and watches his sister make a little house with a cloth over the chair. He enters the 'house' after his sister is finished and lies down on the chair together with his cousin and sister. They make fun and laugh. After a while he goes to his mother. His mother asks if he is hungry. He stands near the chair while his mother gets him some food. After returning, his mother starts to feed him rice with vegetable soup. He stands and sometimes squats beside his mother. After his meal, Asep is given some water to drink. Asep then sets off to play again." (Specimen description 16-9-1991, case 55, 12:00-13:40 hrs.)

In short, the circumstances in which Asep lives can be considered to be rather fragile from an economical perspective. There is not much chance that economical resources will be found to ensure Asep of a varied and stimulating youth. However, socially and emotionally the life of Asep is rather tranquil. Asep gets enough opportunity to play and to explore his environment together with other children.

### **Yulie's Home**

Yulie is almost three years old and lives together with her parents in a two-story brick house in Sheraton. She is the first and only child at the moment. The mother of Yulie is 24 years old and her father is 31 years of age. Her parents have been married for four years. The father of Yulie comes from a family of eight siblings where he is the youngest and her mother comes from a family of five siblings with four still alive and she being the oldest. The grandparents of Yulie live in the same neighborhood. The grandparents on her mother's side take care of her when her mother has to go out. They

live about 20 metres away. The grandparents on her father's side live about 300 metres from Yulie's house. Yulie often goes to see both her grandparents and dares to go the 300 metres on her own.

Both parents of Yulie have had six years of secondary school but her mother finished the regular high school (SMP+SMA) and her father finished the technical high school (SMP+STM). They like Yulie to enter preschool education and have already registered her. Yulie knows that she goes to the preschool and is already looking forward to play with all those toys. At times, Yulie and her mother go and play in the play area outside of the preschool when Yulie feels like going to school.

The two-storey brick house is two years old and is built by the father of Yulie and some uncles. The floor size of the house is six by eight metres. The upper storey is rented to students and the lower storey is used by Yulie's family. The lower storey has four rooms: a small kitchen, bathroom, living room, and the front room. The living room is divided in two by a large cupboard in which a television set and Yulie's toys. Behind the cupboard is a bed where Yulie and her parents sleep. The front room is a warung where Yulie's mother sells a wide range of products. The warung is located at the side of the road where many youngsters pass on their way to school. Yulie's mother is very active: besides selling factory articles she produces fresh drinks and makes kites which doubles her daily profits. The father of Yulie sells construction material and has his 'store' in the back of the yard. He sometimes works as an independent construction labourer for people in the neighborhood.

The mother of Yulie has been using contraceptives since Yulie was born. They would like to have another child but wait until Yulie has entered the preschool. Yulie's mother says that it would be too tiresome at the moment. Yulie still asks a lot of attention and she also needs to attend the warung. Yulie has received all vaccinations and her health is closely monitored by her mother. She is very well nourished and can even be considered somewhat overweight for her age. When there is something wrong with Yulie, the parents go to the doctor and do not attend the communal health clinic.

After their marriage, Yulie's parents lived in the house of the parents of Yulie's mother for one year. After Yulie was born, they lived with the parents of her father until their house was ready. Yulie's family never moved out of the neighborhood. Furthermore, the moves were well embedded in the larger family.

Yulie's home is a centre of people coming and going: the buyers, the students who live upstairs, the children who come to play with Yulie, and the relatives who sometimes come to assist Yulie's mother and sometimes come to sit and watch television. The house has a very central location and is one of the newest houses in the neighborhood. Around the house is a lot of open space where Yulie can play. There is also a pond nearby. Yulie is not allowed to cycle yet because her mother considers the road to be too dangerous. Furthermore, the drive besides the house is at such an angle that children will approach the road at some speed. That is what Yulie did one day with a bicycle from one of her cousins. After that incident, neither Yulie nor other children were allowed to cycle there. An excerpt from the specimen descriptions illustrates an ordinary part of Yulie's daily experience. Yulie is running around the house and sees a

friend (about five years old), who had just helped her with her meal, go to buy something. Her mother is sitting on a bench outside the warung.

“Yulie is fussing and says that she wants to follow her friend who is going to buy ice-cream. Her mother gives her some money and tells her to put on some sandals. Yulie looks for her sandals and puts them on. She goes to the other warung while holding hands with her friend. They talk and eat on the way. When they return, Yulie goes into the living room and gets something to drink. She yells for her mother who is in the kitchen. Yulie is talking with a student for a while. Then she goes to the kitchen and returns to the living room. Yulie sits in a chair and drinks again. She calls her father who just returned home. Yulie picks up a wrapped cake that her father brought with him while she yells happily and kisses him. She sits again and drinks. After her bottle is finished she throws it away and goes outside with the wrapped cake in her hand. She calls her friend. Yulie goes back into the house and asks her mother to open the wrapper. Her mother gives her a part of the cake which Yulie takes with her outside. Her father leaves and Yulie wishes to follow him. When mother tells her to stay, Yulie starts to cry. Yulie goes to her father herself and asks him if she may come with him in the car to bring the material. Yulie’s father agrees and she sits in the car. While passing her mother, Yulie greets her. Yulie drives around with her father for about half an hour. When she returns, she goes in the house and jumps up and down. Yulie asks her mother for the remaining part of the cake and gets it.” (Specimen description 1-6-1992, case 94, 10:00-11:00 hrs.)

In short, the life of Yulie is very active. Economically, there are large resources available to educate and to stimulate her development. Socially, Yulie is the centre of a lot of attention which is sometimes hard for her and may lead to ‘spoiled’ behavior. Emotionally, Yulie has to cope with the fact that the attention of her mother is often diverted towards the shop and at other times strongly focused on her well-being.



## Chapter 5

### Parenting in Indonesia: Contextual Variables and Quality of Maternal Support

#### Abstract

The caregiving context for 76 Indonesian mothers was related to the quality of support these mothers provided for their 1 to 6-year-olds at home and in a structured play session. First, quality of maternal support was found to be consistent within and across settings. Second, mothers who supported their children well in both settings came from higher educated, richer families; they also aspired to a higher level of education for their children, liked child-centered festivities, and aspired to live in a better neighborhood. Third, more proximal contextual variables significantly explained the differences in the quality of maternal support whereas more distal contextual variables were found to contribute more indirectly. The quality of support provided by Indonesian mothers seems to be influenced by the same contextual forces found in western samples.

The context of caregiving has been distinguished as one of the three major determinants of parenting with the other determinants being child characteristics and parental characteristics (Belsky, 1984). Although caregiving contexts are a relatively neglected research topic in developmental studies (Bornstein, 1991), there have been several attempts to study the relation between the context of parenting and parental behavior in sociologically, anthropologically, and psychologically oriented research. Sociologically oriented research has concentrated on the relation between "social address" measures (Bronfenbrenner, 1986) such as social class, socio-economic status, ethnicity, level of education and caregiving style (e.g., Gecas, 1979; McLoyd, 1990; Stevens, 1988). In anthropologically oriented research, caregiver behavior has been compared across cultures (e.g., Bornstein et al., 1992; LeVine, Miller, & West, 1988; Whiting & Edwards, 1988). That is, the caregiving context and differences in caregiver behavior have been examined at a cultural level without much attention to possible intracultural variations at the level of the individual (Minturn & Lambert, 1964; Super & Harkness, 1986). In contrast, the emphasis in psychologically oriented research has been on individual differences in the quality of parental behavior. Most of the researchers within this tradition view the caregiver context as consisting of sources of stress and support that can be related to the perceptions of the parent (e.g., marital satisfaction, infant temperament, parental depression) measured using self-report instruments (e.g., Conger, McCarty, Yang, Lahey, & Kropp, 1984; Felner et al., 1995; Fish & Stifter, 1993; Simons, Lorenz, Wu, & Conger, 1993). In the present study, elements of the three above mentioned research orientations have been combined in an attempt to understand the impact of contextual variables on the quality of maternal support in Indonesia. First, the study considered social and economic indicators in a

heterogeneous sample. Second, I examined the intracultural differences in child rearing beliefs and values within this non-western setting. Third, maternal behavior was related to contextual variables that are supposed to provide physical and structural sources of stress and support. Evidence has been found for the assumption that specific aspects of the environment relate to specific aspects of child development and parenting (Wachs, 1991; Wachs et al., 1993). In this line of thinking, the present study aimed to predict individual differences in the quality of maternal behavior by using a variety of contextual measures at a number of different levels.

Before proceeding to describe the caregiving context, the concept of parenting should be clarified first. Bowlby (1988) assumed that parenting is in some degree preprogrammed and ready to develop along certain lines when conditions elicit it. According to evolutionary ecologists and sociobiologists, individuals are programmed to invest resources in their offspring in order to ensure the survival and growth of each particular child (Charlesworth, 1988; Thompson, 1997). The allocation of personal resources, however, is a finite. The extent to which parents are able to allocate their resources to a particular child is not always adequate for the promotion of the child's healthy social, emotional, and personality development (Thompson, 1997). In some instances, the pressure from the environment is so overwhelming that parents can barely provide their child with adequate support (Scheper-Hughes, 1992). Even if parents are in a position to adequately support their child, the quality of this support can differ. A key concept for measuring the quality of parental support is parents' sensitivity or the ability of parents to perceive, correctly interpret, and respond promptly and appropriately to children's signals (Ainsworth, Blehar, Waters & Wall, 1978). It has been postulated that "parenting that is sensitively attuned to children's capabilities and to the developmental tasks they face promotes a variety of highly valued developmental outcomes, including emotional security, behavioral independence, social competence, and intellectual achievement" (Belsky, 1984).

Sensitive parental behavior provides the child with a secure base in the early years and continues to remain important in later years (Ainsworth, Bell, & Stayton, 1974; Pianta, Sroufe, & Egeland, 1989). High quality support also manifests itself in situations requiring more than the provision of security. A number of aspects of parental behavior have been shown to characterize the quality of support during the pre-school period (cfr. Erickson, Sroufe & Egeland, 1985; Erikson, 1963; Riksen-Walraven, Meij, Hubbard, & Zevalkink, 1996). Adequate support implies, for example, the provision of adequate emotional support; respect for the child's autonomy; no rejection or hostility; adequate structuring of situations and the setting of firm and consistent limits; and the provision of clear, well-timed, and adequate instructions and information. Pre-school children have been found to demonstrate fewer behavioral problems when caregivers provide this kind of high quality support (Erickson et al., 1985).

What variables in the parenting context may be related to the quality of maternal support? I distinguished five contextual domains that can be expected to

contain sources of stress and support for parents: family structure, education, wealth, health, and residential mobility. The influence of family structure on parenting has been shown in terms of the following factors: mother parity (Fish & Stifter, 1993), maternal age (Ragozin, Basham, Crnic, Greenberg, & Robinson, 1982; Stevens & Duffield, 1986), family extendedness (Harrison, Wilson, Pine, Chan, & Buriel, 1990), and also family size and composition (Garrett, Ng'andu, & Ferron, 1994; Gecas, 1979). Education appears to be important because it not only determines the instructive quality of parental remarks (Bernstein, 1972) but also the way in which parents support their child emotionally (Bradley et al., 1989; Fish, Stifter, & Belsky, 1993). Wealth is a domain characterized by income and occupation and in several studies has been found to be associated with supportive parental behavior (Conger, Ge, Elder, Lorenz, & Simons, 1994; Cotterell, 1986; Farran & Haskins, 1980; Greenberger, O'Neil, & Nagel, 1994; Skinner, 1985). In the domain of health, the quality of support provided by mothers has been found to be related to their preventive health activities (Alderman & Garcia, 1994; Cogswell & Sussman, 1979; Tapia Uribe et al., 1993) and also to the provision of nutritious meals (Myntti, 1993; Pollitt, 1983; Zeitlin, 1991). Finally, residential mobility has generally been found to influence parenting negatively (Rohner, Hahn, & Koehn, 1992). Although it may also have a positive effect when the move constitutes a major improvement in the social and economic situation of the family (Larner, 1990).

Not all of the above-mentioned contextual variables contribute to parenting in the same way. In order to arrange the domain-specific variables according to their expected effect upon parental behavior, we used an adapted version of Bronfenbrenner's ecological model. Context is envisaged as a set of concentric levels with each level influencing those adjacent to it (Bronfenbrenner, 1979; Sroufe, Cooper & DeHart, 1992). The first level, which is assumed to have the most direct influence on parenting, is labeled the immediate environment and defined as the settings, persons, and physical objects with which the parent has direct contact. The second level is the social and economic context and defined as those social and economic features of the family network that can not be observed directly in the immediate environment. The third level is the cultural context and defined as those child-rearing beliefs, values, and guidelines that family members tend to share with others in the (sub)cultural setting. Measures from each domain were assigned to a level on the basis of these definitions. For instance, in the domain of wealth, possessions and living space per person were assigned to the immediate environment, the family income was considered to be one of the measures of the social and economic context, and preference for spending resources on outdoor activities and children's birthdays were measures of the cultural context (Zevalkink, Riksen-Walraven, & Van Lieshout, 1995).

Three predictions regarding the quality of maternal support and the contextual variables were examined in the present research. The first prediction concerned the consistency of the quality of support provided by the mothers in a number of different



situations. Maternal sensitivity is assumed to be a major determinant of the quality of support. Sensitivity is also a relatively stable maternal characteristic reflected in her behavior towards the child across a variety of settings (cf. Ainsworth et al., 1974; Lamb & Easterbrooks, 1981). The quality of support provided by the mother should thus be consistent across situations in this sample as it had indeed been found with North American (Pianta et al., 1989), Dutch (Meij, Riksen-Walraven, & Van Lieshout, 1992), and Japanese (Vereijken, 1995) subjects. In the present study, the quality of maternal support was assessed at home as well as in a structured play session. Although these settings may elicit different maternal behaviors (Schneider-Rosen & Wenz-Gross, 1990), at least a moderate relation was expected to exist between the quality of maternal support assessed in the two settings (cf. Bordin & Henggeler, 1981).

The second prediction concerned the relation of the contextual variables in the five different domains to the quality of maternal support. Research has shown significant correlations between the quality of support and family structure (e.g., Bronfenbrenner, 1986; Simons et al., 1993), education (e.g., Bradley et al., 1989), wealth (Conger et al., 1994; Skinner, 1985), health (e.g., Bradley et al., 1994b; Scheper-Hughes, 1992; Wachs et al., 1992), and mobility (e.g., Lerner, 1990; Rohner et al., 1992). Therefore, the quality of maternal support was also expected to be related to the contextual variables in all five domains.

The third prediction concerned the relation of the quality of maternal support with the contextual variables. In accordance with Bronfenbrenner's model, it was assumed that the variables in the cultural context and the variables in the social and economic context would more indirectly exert their influence than the proximal variables in the immediate environment (Bronfenbrenner & Ceci, 1994). For example, income (assigned to the social and economic context) was assumed to affect the quality of maternal support through the contextual variables in the immediate environment such as possessions, living space per person, and availability of play materials (Bradley et al., 1994b; Riksen-Walraven, 1974; Wachs et al., 1993). Variables in all three of the different contexts were expected to affect the quality of maternal support, but the variables in the cultural context and the social and economic context were not expected to add much to the relation of the variables in the immediate environment to the quality of maternal support.

## Method

### Research Site

The participants lived in two urban communities or 'kampungs' in the northern part of Bandung, West Java. An urban kampung is a residential area with a large proportion of sub-standard housing and narrow pedestrian pathways. Unoccupied plots and areas for growing vegetables often lie between the houses. A kampung also has a minimum of urban facilities such as electricity, water, garbage collection, and sewage

and drainage (Guiness, 1987). The population density in the present research site was about 9,000 persons per square kilometer in 1990 (Pemerintah, 1990).

### Subjects

The final sample consisted of 76 Sundanese mothers and their children under six years of age. Addresses were obtained from local health centers and a door-to-door census. The study's objective was to obtain a sample with the ages and sex of the children evenly distributed. The families were divided into five age-groups: babies (0-12 months; 6 girls, 5 boys), young toddlers (12-24 months; 5 girls, 9 boys), older toddlers (25-36 months; 8 girls, 8 boys), young pre-schoolers (37-54 months; 8 girls, 10 boys), and older pre-schoolers (55-72 months; 9 girls, 8 boys). The split between the last two age-groups was determined by the age of pre-school entrance in Indonesia. Most of the families had already met the first author at a local Health Registration Centre, where she had started working as a volunteer prior to data collection. No family refused to participate. Of the original sample of 80 families four families dropped out for various reasons: an unexpected move ( $n=1$ ), work overload due to twin babies ( $n=1$ ), and child anxiety in the structured play session ( $n=2$ ).

### Procedure

The mothers and children were visited at home by the first author on a number of occasions with an average of three formal visits per family (range 2-5). During these home visits, the mother-child interaction was observed in the natural setting and these observations were then merged into a narrative report. The mother was also interviewed with regard to the context of the mother-child interaction. A second interview took place with a subsample of 55 families and specifically concerned child rearing values and attitudes. Additionally, local research assistants visited the families at an average of three times three hours and were able to gather specimen descriptions across the entire day (including sleeping hours).

After the collection of the home data, the mothers and children were invited to a local facility where mother-child interaction was then videotaped. The setting was not too unfamiliar for the mothers and was also within easy walking distance of their homes. The structured play session lasted an average of 15 minutes and consisted of six episodes for children from 12 to 30 months, five episodes for children from 31 to 42 months, and four episodes for children from 43 to 72 months. The episodes consisted of instructional tasks such as ball play, reading a book, or putting a puzzle together (see Appendix C for an overview). For the youngest children (12 to 30 months), the last episode was a free play situation.

### Instruments and Measures

Quality of maternal support. The quality of maternal support was assessed both at home and in a structured play session. The quality of maternal support at home was assessed using the nine-point Sensitivity Scale developed by Ainsworth and colleagues

(Ainsworth et al., 1974). This assessment was based on the narrative reports of the first author and the specimen descriptions made by the field assistants. Four months after the initial ratings, the first author rated every seventh subject again. The test-retest reliability for the ratings of the home observations was found to be .94 (Pearson correlation).

The quality of maternal support in the structured play session was assessed using five 7-point rating scales developed by Erickson, Sroufe and Egeland (1985): supportive presence (i.e., expression of positive regard and emotional support for the child), respect for autonomy (i.e., recognition of and respect for the child's individuality, motives, and perspectives), hostility (i.e., expression of anger, discounting or rejecting of the child), structure and limit setting (i.e., adequacy of mother's attempts to establish her expectations for the child's behavior versus not communicating her expectations or not enforcing her agenda adequately), and quality of instruction (i.e., the degree to which instructions are timely to the child's focus, stated clearly, paced at a rate that allows comprehension, and graded in logical steps that the child can understand). These five rating scales are assumed to all reflect --be it in different kinds of behavior-- a mother's sensitive responsiveness to her child's signals and needs in the instruction setting. Ainsworth and colleagues (1978) already indicated that maternal sensitivity may be reflected in various situations in different kinds of behavior.

The videotaped structured play interactions were divided into two groups according to the child's age: toddlers (12 to 30 months;  $n=33$ ) and pre-schoolers (31 to 72 months;  $n=43$ ). A trained graduate student rated the interactions with the toddlers using the first three scales. Two independent observers (the author and Marianne Riksen-Walraven, who has trained the author and has extensive experience with the rating scales) then rated the interactions with the toddlers using the last two scales and the interactions with the pre-schoolers using all five scales. The inter-rater reliability, expressed in Pearson correlations, was .90 for supportive presence, .86 for respect for autonomy, .79 for hostility, .79 for structure and limit setting, and .89 for quality of instruction.

Contextual variables. The contextual variables were measured using the results of a census, health records, a value and attitude interview, and certain sub-scales from the HOME (Home Observation for Measurement of the Environment, Caldwell & Bradley, 1984). As outlined in the introduction, the measures were conceptually categorized into five domains and three levels. In order to reduce the number of measures to more robust contextual variables, factor analyses within each contextual level and domain were performed with the measures assigned to that context and domain (Zevalkink et al., 1995). Table 5-1 provides a short description of the variables that were found to characterize the Indonesian context of parenting. Not all of the measures assigned to a particular domain and contextual level could easily be condensed into a single variable. In four instances, the factor analyses yielded a second variable for a given domain. For example, at the level of the cultural context within the domain of education, 'preference for religious education' was clearly found to constitute a different dimension than 'educational aspirations'. Similarly, 'health problems' was found to

Table 5-1

Variables describing the context of parenting in Indonesia in five domains and three contexts

Domain		Variable name <sup>1</sup>	Description of variables <sup>2</sup>
Family structure	(i)	Maturity	Age of parents, number of children, and number of household members
	(s)	Remarriage	Number of remarriages of both parents and size of paternal family of origin
	(s)	Extendedness	Living in an extended vs. nuclear family form and size of maternal family of origin
	(c)	Traditionality	Preference for more children, for differences in child rearing of boys and girls, and for nuclear family form
Education	(i)	Family education level	Educational level of both parents and number of children attending preschool
	(s)	Relatives education level	Educational level of parents and siblings of both father and mother
	(c)	Educational aspirations	Preference for preschool education and high school aspirations
	(c)	Religious education	Preference for religious education
Wealth	(i)	Physical wealth	Number of durable consumer goods, quality of housing, living space per person, safety of physical environment, provision of play materials
	(s)	Economic wealth	Amount of income, occupational status of both parents
	(c)	Child-centered festivities	Preference for outdoor activities, remembering and celebrating children's birthdays
Health	(i)	Health problems	Prevalence of life-threatening health problems, actuality of health problems
	(i)	Nutrition	Nutritional status of children, expenditures on protein-rich foods, expenditures on basic needs
	(s)	Preventive health activities	Number of children vaccinated, presence of a bathroom, and use of contraceptives
	(c)	Preventive health attitudes	Preference for regular prenatal care, preference for a professional instead of a traditional midwife
Residential mobility	(i)	Mobility of the family	Number of times moved, distance from relatives, and length of time in earlier place of residence
	(s)	Urban origin	Urban versus rural origin and nearness of maternal place of birth
	(s)	Origin of father	Distance to paternal place of birth and nearness of maternal place of birth
	(c)	Mobility aspirations	Preference for a better house and a better neighborhood instead of only a better house

<sup>1</sup> Letters preceding variable names indicate whether the variable characterizes the immediate environment (i), the social and economic context (s), or the cultural context (c).

<sup>2</sup> See Chapter 4 for a more complete description of the constructed variables.

constitute a different aspect of general health than 'nutrition'. The patterns of interrelations were also examined for the three contextual levels within each domain and strong interrelations between contexts were found within the domains of education, wealth, and health. Few significant intercorrelations were found for the different contextual levels within the domains of family structure and mobility.

## Results

### Consistency of the Quality of Maternal Support across Situations

Before investigating the consistency of the maternal behavior across situations, the intercorrelations between the different rating scales were examined for the quality of maternal support in the structured play session. Table 5-2 shows moderate to moderately high interrelations between the five aspects of support rated in the structured

**Table 5-2**  
Intercorrelations for rating scales measuring different aspects of the quality of maternal support

	Structured play session					Home
	SP	RA	HO	SL	QI	SENS
Structured play session:						
Supportive presence (SP)		.51**	-.23*	.42**	.55**	.43**
Respect for autonomy (RA)			-.24*	.24*	.43**	.27*
Hostility (HO)				-.24*	-.25*	-.31**
Structure and limit setting (SL)					.67**	.24*
Quality of instruction (QI)						.38**
Composite score for play session						.46**

Note. SENS= sensitivity. \*  $p < .05$ ; \*\*  $p < .01$ .

play session. All scales correlated significantly and in the expected direction, which means that they represent different aspects of the same construct (i.e., quality of maternal support during instructional tasks). Exploratory principal component factor analysis with varimax rotation also revealed one factor to represent all five scales with loadings of .78 for supportive presence, .67 for respect for autonomy, -.47 for hostility, .75 for structure and limit setting, and .85 for quality of instruction (eigenvalue 2.57; explained variance 51.4 %). A composite score was thus constructed by summing the

five scale scores after reversing the score for hostility.

As shown in Table 5-2, mothers' sensitivity at home significantly correlated with all five aspects of their support in the structured play session. Supportive presence, hostility, and quality of instruction in the structured play session were somewhat stronger related to sensitivity at home than respect for autonomy or structure and limit setting. The correlation of .46 between the composite score for the structured play session and sensitivity at home supports the prediction that the quality of support provided by Indonesian mothers for their children will be consistent across situations.

In addition to the scores for the quality of maternal support at home (sensitivity scale) and in the structured play session (composite score for the five rating scales), an overall score was computed on the basis of factor analysis. This analysis revealed a single factor that explained 72.9% of the variance (eigenvalue 1.46).

Table 5-3

Pearson correlations between quality of maternal support and contextual variables at different levels in five domains

Variables per domain	Structured play Composite score	Home Sensitivity	ALL
Family structure:			
Maturity (i)	.25 *	.10	.20
Remarriage (s1)	.15	-.12	.01
Extendedness (s2)	-.04	.01	-.00
Traditionality (c)	-.11	-.28 *	-.22
Education:			
Family education level (i)	.30 **	.41 **	.41 **
Relatives education level (s)	.19	.28 *	.28 *
Educational aspirations (c1)	.38 **	.38 **	.46 **
Religious education (c2)	.13	.12	.13
Wealth:			
Physical wealth (i)	.13	.44 **	.33 **
Economic wealth (s)	.24 *	.42 **	.39 **
Child-centered festivities (c)	.29 *	.34 *	.37 **
Health:			
Health problems (i1)	.13	-.02	.06
Nutrition (i2)	.15	.43 **	.33 **
Preventive health activities (s)	.39 **	.22	.36 **
Preventive health attitudes (c)	.25	.26	.31 *
Residential mobility:			
Mobility of the family (i)	.15	-.09	.02
Urban origin (s1)	-.10	.21	.07
Origin of father (s2)	.16	.16	.20
Mobility aspirations (c)	.32 *	.34 *	.41 **

Note. ALL= factorscore derived from composite score and sensitivity rating. i, i1, or i2 = variables in the immediate environment; s, s1, or s2 = variables in the social and economic context; c, c1, or c2 = variables in the cultural context. N = 80. \*  $p < .05$ ; \*\*  $p < .01$ .



### Correlations between the Quality of Maternal Support and Contextual Variables in the Five Domains

The correlations between the quality of maternal support in the two settings and the contextual variables in the five different domains are presented in Table 5-3. Some of the contextual variables were found to be related to the quality of maternal support in both settings: family education level, educational aspirations, economic wealth, preference for festivities, and mobility aspirations. Mothers who adequately support their children in both settings appear to come from higher educated, richer families; to aspire to a higher level of education for their children; to want to live in a better neighborhood; and to prefer festivities for their children. Furthermore, maternal support in the structured play session was found to be related to maturity and preventive health activities. Mothers who provide high quality support in the structured play session seem to live in more mature families and to provide more preventive health care for their children<sup>1</sup>. Sensitivity of the mothers at home was negatively related to traditionality and positively related to the educational level of relatives, physical wealth, and nutrition. Mothers who behaved sensitively in the home setting had less traditional family structure beliefs, higher educated relatives, a richer immediate environment, and more attention for nutritional matters than mothers who behaved less sensitively in the home setting. The overall score for the quality of maternal support was significantly related to most of the contextual variables in the domains of education, wealth, and health. In the domain of residential mobility, the quality of maternal support was only related to mobility aspirations; in the domain of family structure, the quality of maternal support was not related to any variable.

### Predicting the Quality of Maternal Support from Contextual Variables at Three Levels

In order to assess the contribution of the various contextual variables to the quality of maternal support, multiple regression analyses were utilized. As predictor variables, all of the variables in the domains of family structure, education, wealth, health, and mobility at the different contextual levels were included. The zero-order correlations among the predictor variables are presented in Table 5-4. The domains of education, wealth, and health proved to be significantly interrelated while the domains of family structure and mobility were mostly related to wealth.

Multiple regression analyses were performed using a three-step hierarchical procedure (Cohen, 1988). Variables in the immediate environment were simultaneously entered into the regression equation in the first step, variables in the social and economic context were entered into the equation in the second step, and variables in the cultural context were entered in the third step. As indicated in the introduction, the hierarchical

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<sup>1</sup> Of the 15 significant correlations between the five separate scales for the quality of maternal support in the structured play session and the contextual variables, the scores for supportive presence and quality of instruction accounted for 14 significant correlations.



Table 5-4  
Correlations between the variables from the five different domains and three contextual levels

	Education			Wealth			Health			Mobility					
	(i)	(s)	(c1)	(c2)	(i)	(s)	(c)	(i1)	(i2)	(s)	(c)	(i)	(s1)	(s2)	(c)
<u>Family structure</u>															
Maternity (i)	-.02	-.05	.15	.26	.12	.12	-.12	.35**	-.15	.46**	.09	-.03	-.21	-.05	-.08
Remarriage (s1)	-.22	-.18	-.14	-.10	-.22	-.23*	-.04	.39**	-.09	-.08	-.33*	.10	-.30**	.07	-.02
Extendedness (s2)	.33**	.07	.11	.00	.33**	.31**	.19	.02	.09	-.01	.26	-.20	.12	.16	.19
Traditionality (c)	-.47**	-.22	-.23	-.09	-.25	-.33*	-.35**	.27	-.28	-.18	-.31*	.15	-.12	-.19	-.19
<u>Education</u>															
Family education level (i)					.65**	.69**	.68**	-.16	.45**	.53**	.76**	-.03	.19	.17	.49**
Relatives education level (s)					.44**	.45**	.43**	-.08	.25	.30*	.53**	-.12	.14	.10	.47**
Educational aspirations (c1)					.63**	.57**	.62**	-.05	.32*	.56**	.57**	.03	.12	.09	.55**
Religious education (c2)					.02	.00	-.07	.02	-.13	.26	-.03	.09	-.07	.16	.10
<u>Wealth</u>															
Physical wealth (i)								-.03	.52**	.54**	.54**	-.23*	.34**	.05	.41**
Economic wealth (s)								-.10	.25	.49**	.48**	-.28*	.15	.15	.45**
Child-centered festivities (c)								-.38**	.30*	.52**	.54**	-.10	.18	.12	.38**
<u>Health</u>															
Health problems (i1)												-.13	-.16	-.02	-.11
Nutrition (i2)												-.09	.31*	.06	.13
Preventive health activities (s)												.02	.08	.20	.34**
Preventive health attitudes (c)												-.04	.05	.24	.32*

Note. Symbols following variable names indicate whether the variable characterizes the immediate environment (i), the social and economic context (s), or the cultural context (c). (i) = Mobility of the family, (s1) = Urban origin, (s2) = Origin of father, (c) = Mobility aspirations. \*  $p < .05$ ; \*\*  $p < .01$ .

ordering of the three levels was based on the proposition that proximal processes will have a more direct impact on the quality of maternal support than distal processes. Some instability between the regression coefficients can be expected because of the moderately high intercorrelations between the independent variables.

The contribution of the variables in the different contexts to the quality of

Table 5-5

Hierarchical regression analysis predicting quality of maternal support from variables in the immediate environment, the social and economic context, and the cultural context

	Regression entering steps		
	1	2	3
<u>Immediate Environment</u>			
Maturity	.23 *	.21	.31 *
Family education level	.34 *	.23	.19
Physical wealth	-.01	-.09	-.09
Health problems	.02	.03	.09
Nutrition	.22	.24	.27 *
Mobility of the family	.05	.07	.05
<u>Social and Economic Context</u>			
Remarriage		.08	.00
Extendedness		-.17	-.19
Relatives' education level		.00	-.05
Economic wealth		.29	.22
Preventive health activities		-.03	-.21
Urban origin		.06	.03
Origin of father		.11	.12
<u>Cultural Context</u>			
Traditionality			-.02
Educational aspirations			.02
Religious education			.06
Child-centered festivities			.20
Preventive health attitudes			-.04
Mobility aspirations			.20
R <sup>2</sup>	25.3 %	31.9 %	37.2 %
R <sup>2</sup> change	25.3 %	6.7 %	5.2 %
F	3.89 **	2.24 *	1.75
F change	3.89 **	0.87	0.78

Note. The coefficients are standardized regression coefficients. \*  $p < .05$ ; \*\*  $p < .01$ .

maternal support<sup>2</sup> is presented in Table 5-5. As shown in the first step, variables in the immediate environment contributed significantly to the quality of maternal support. Two variables in particular were found to significantly predict the quality of maternal support: maturity and family education level. The more mature the families were and the higher the educational level of the family, the higher the quality of maternal support for the child. It is noteworthy that nutrition was found to increase in significance when more distal contextual variables were entered while family education level was found to decrease in significance. As predicted, variables in the social and economic context did not account for significant proportions of variance when they were entered in the second step. The variables in the cultural context entered in the last step also did not significantly add to the predicted relation. In this step, more variance was explained but not significantly accounted for due to the increase in degrees of freedom. Although the intercorrelations between some of the variables could conceivably produce some instability among the standardized regression coefficients, multicollinearity was not detected (Tabachnick & Fidell, 1989).

As a control measure, the three-step hierarchical regression analysis was also performed in the reverse order: inserting the cultural context variables first, then the social and economic context variables, and finally the immediate environment variables. Again, it was found that only in the third step, after entering the variables from the immediate environment, the quality of maternal support was significantly accounted for. The third step explained 41.3% ( $R^2$ ) of the variance,  $F(18, 75) = 2.08$ ,  $p = .02$ ,  $SE = 1.37$ , with maturity ( $p = .03$ ) and nutrition ( $p = .01$ ) contributing significantly while the change in explained variance was also significant ( $R^2$  change = 14.0%,  $F(18, 75) = 2.23$ ,  $p = .05$ ). Two separate variables from the social and economic context were significantly related to the quality of maternal support: in the second step, the contribution of economic wealth was significant ( $p = .01$ ); and in the first step, preventive health activities made a significant contribution ( $p = .03$ ).

## Conclusions and Discussion

Three main conclusions can be drawn from this study. First, the quality of support provided by Indonesian mothers appears to be consistent both within and across situations. Second, the context of parenting appears to be significantly related to the quality of maternal support. Third, variables in the immediate environment explain a significant part of interindividual differences in the quality of support provided by Indonesian mothers. In general, this study confirms the three predictions stated in the introduction. In the following, the results will be considered from a broader perspective.

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<sup>2</sup> Two separate hierarchical regression analyses with quality of maternal support at home and quality of support in the structured play session as the dependent variables showed similar results.

First, I investigated the interrelatedness of the various aspects of the quality of support and the consistency of this support across the two settings at home and in a structured play session. The first main finding was that the five aspects of the quality of maternal support studied in the structured play session indeed appear to be interrelated. This supports the assumption that the various aspects of maternal support that were observed in the present study constitute different aspects of one underlying construct. This finding is in accordance with the results of two other studies using the same supportive measures. Significant interrelations had also been found for low-income Dutch mothers (Meij et al., 1992) and low-income Surinam-Dutch mothers (Riksen-Walraven et al., 1996). The second main finding was that the quality of maternal support was consistent across situations in the present Indonesian sample. The significant relation found between the quality of support provided by the mothers in the structured play session and their sensitivity observed at home confirms the assumption that the dimensions of maternal support assessed in the structured play session all reflect one underlying maternal characteristic, i.e., her sensitivity. Sensitive responsiveness appears to be a stable and pervasive characteristic of Indonesian mothers reflected in the quality of the support they provide for their children in a variety of situations.

Second, the relation between the contextual variables in five different domains and the quality of maternal support was investigated. The predicted relation between the contextual variables in the domains of education, wealth, and health along with the overall quality of maternal support was confirmed with the present Indonesian sample. The importance of education is again underscored in this study. It seems that being more wealthy gives Indonesian mothers the opportunity to provide their children with higher quality support. This finding is in keeping with, for instance, sociobiological and evolutionary ecological perspectives (cf. Charlesworth, 1988; Thompson, 1997) and also generally confirmed by sociologically oriented research (cf. Gecas, 1979; McLoyd, 1990). The physical wealth reflected in the immediate environment was found to be differentially related to the quality of maternal support provided in the two settings: there was a significant correlation with the quality of support provided at home, but not in the structured play session. That is, physical wealth as expressed by living space per person, safety, and provision of play materials may make it easier for mothers to provide high quality support at home; when all mothers are placed in a relatively rich immediate environment (i.e., supplied with plenty of toys in the structured play session), however, the relation between physical wealth and the quality of support is no longer significant. The differences in the quality of support provided by the mothers living in a relatively rich environment and the mothers living in a relatively poor environment simply disappear in the structured play session. Most of the variables in the domain of health were found to relate to the overall quality of maternal support. A mother who provides adequate support presumably devotes more effort to the supply of adequate nutrition and preventive health care than a mother who does not provide adequate support. Contrary to expectations, the quality of maternal support was not found to be related to health

problems in the family. It is likely that in most cases health problems do not occur at such a high level of intensity that they will affect the quality of support. With regard to the relation between nutrition and the quality of maternal support, a remarkable difference exists between the two settings. Nutrition is related to the quality of maternal support at home but not to the quality of support in the structured play session. It is possible that the ratings of supportive behavior at home are influenced by a more nurturing atmosphere that is simply not visible in the structured play session.

In the domain of family structure, the overall quality of support provided by Indonesian mothers was not found to be related to the maturity of the family, the number of remarriages, the extendedness of the household, or the traditionality of the family. The maturity variable consisted of the age of the parents and the number of children. Other researchers have found this information to be positively related to the quality of maternal support (e.g., Fish & Stifter, 1993; Ragozin et al., 1982). In the present sample, situation-specific effects may have masked such positive relations. In the structured play session, the finding of a significant positive correlation suggests that a more experienced mother could provide the target child with high quality support without being distracted by her other children. The finding of no correlation between the quality of support provided at home and maturity, however, suggests that more children demand the attention of the mother at home and that she is probably unable to provide the same quality of support as in the structured play situation. That the number of remarriages was not found to be related to the quality of maternal support may be accounted for by the fact that marital quality --which has been reported to be related to parenting (Belsky, 1984; Fish et al., 1993)-- was not specifically measured. Also, remarriages in Indonesia often take place at an early age when no children have been born yet (McDonald & Abdurahman, 1974) and the previous marriage will not, thus, affect the quality of maternal support provided in a later marriage. The extendedness of a family can be a source of social support but can also be an impediment to optimal functioning (Stevens, 1988). The present study did not differentiate between the possible types of social support or its quality. Living in an extended family was not found to bear a relation to the quality of support provided by Indonesian mothers. The traditionality of the values about family structure was also not related to the overall quality of maternal support although at home mothers with traditional values appear to be less supportive to their children than mothers with less traditional values.

In the domain of residential mobility, the results show only higher aspirations in this field to be associated with the provision of better support to children. Contrary to expectations, the quality of support provided by the mothers in this Indonesian sample was not related to the number of times a family had moved, to urban origin, or to the distance to parent's place of birth (cf. Cotterell, 1986; Lerner, 1990; Rohner et al., 1992). Perhaps the circumstances associated with residential mobility are not very stressful for Indonesian mothers. In circumstances where the move is indeed negatively motivated, however, the relation to the quality of maternal support may be stronger. For instance, in times of war a move to an urban community may be motivated by fear or

possible starvation.

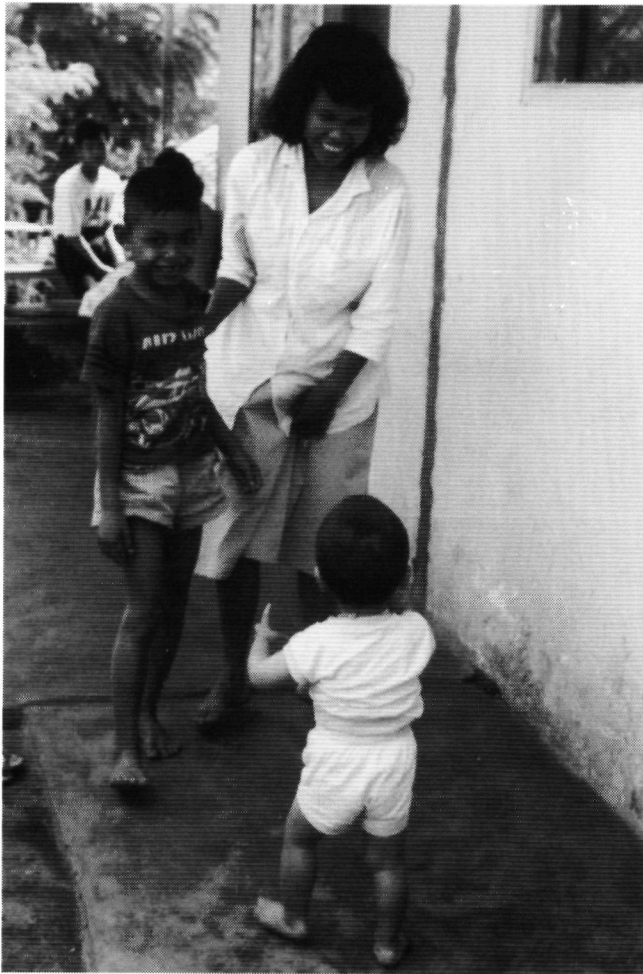
Third and last, contextual variables from the immediate environment were found to predict the quality of support provided by the Indonesian mothers whereas variables at the other contextual levels did not add to this prediction. Family education level and maturity of the family from the immediate environment were found to significantly contribute to the quality of maternal support. Drawing on the model of Bronfenbrenner, the more distal variables in the cultural context and the social and economic context were expected to exert any influence via the more proximal processes associated with the immediate environment. The additional influence of variables from the social and economic context and the cultural context on the quality of maternal support may only appear after the influence of the immediate environment has been taken into account. In the analysis, no additional effects were found. It should be noted in this light that the quality of maternal support was defined as the dependent variable in the present study; contextual variables such as nutrition and preventive health care have been found in previous research, however, to be affected by the supportive behavior of the mother towards a child (Myntti, 1993; Zeitlin, 1991). In the present study, no conclusions can be drawn about the direction of the effects.

Although generalizations from the present sample of urban Indonesian Sundanese families can only be made tentatively, it might be concluded that the quality of maternal support in Indonesia appears to be determined by the same contextual forces observed in other research. That part of Belsky's process model which explains parental behavior in terms of the caregiving context is evidently applicable with a non-western population. Specific aspects of the environment were also found to be related to specific aspects of maternal behavior in the present study, moreover. Finally, understanding which aspects of the caregiving context determine the quality of maternal support may be helpful in the design of intervention programs (cf. Fish & Stifter, 1993). We now know that intervention programs in Indonesia should be sure to include young inexperienced parents with low educational levels and attempt to help them understand what qualitative caregiving is all about.

## Interlude II

### Parenting in Context: The Parents of Neneng and Koswara

Parents are the focus of this interlude. Again, two vignettes are presented. The first is about the parents of a girl who lives in Loompoor and the second about the parents of a boy from Sheraton. The children have the same age. Each vignette starts with a description of the parenting context that will be followed by a description of the relationship between the parents and the target children. At the end, the vignette shows the actual ratings of the quality of support that each mother provided to her child in two settings.



Picture 13  
Parenting in action



### Neneng's Parents

Neneng is two and a half years old and lives in Loompoor. She has a nine-year old sister. A brother was born when Neneng's sister was two years old. He died after a week of high fever when he was three and a half years old. Neneng was born a year after her brother died. At the age of one, Neneng was nursed by an aunt, a sister of her father, for about five months. Her mother had typhoid. In that period, Neneng's mother stayed with her own parents, Neneng went to her father's parents, and her father and sister stayed in Bandung. After reuniting in Bandung, Neneng was again nursed by her mother. At first, not much milk came out of the breast but after some time the milk started to flow. Neneng is still breastfed by her mother. Her mother wants Neneng to decide when to wean from the breast because Neneng is a poor eater.

Both parents of Neneng were born in rural areas. They married 14 years ago when the mother of Neneng was 11 years old and her father was 21 years old. After their marriage, they stayed with the father's parents for one year and then came to Bandung. All of the close relatives still live in the rural areas outside Bandung.

In Bandung, Neneng's family lives in a three-by-three square metres extension of the house of an uncle of Neneng's father. In the room is a bed and a wardrobe. Neneng's mother excuses herself for the small quarters. In the daytime, they spend more time in the living room of the uncle, in the guest room of a distant relative in order to watch television, or outside on the veranda in front of the house than in their own room. At night, the family sleeps in one bed. When it is too hot, Neneng's father likes to sleep on a tikar on the floor.

The parents of Neneng went to primary school: her mother was there for five years and her father finished it. At present, Neneng's sister is in the second class of a medium standard primary school. Her parents are very glad that they can afford to send her there. The school fee and transport cost about eight percent of a monthly income that Neneng's father earns as a construction labourer. Neneng's father wishes his daughters to receive as much education as possible.

Like many couples, Neneng's parents have a somewhat different opinion on religion and education. Her father is more secular oriented whereas Neneng's mother would like to be able to spend more time on religious activities. However, Neneng's mother realizes that if she wants to pray five times a day and spend a lot of afternoons in the mesjid she needs to be clean and bathed before performing all the rituals. This is not easy when she also needs to watch the whereabouts of Neneng and Neneng still needs her for breastfeeding. For her daughters, she considers religious education to be essential, either together with regular primary education or in a special religious primary school. Her husband thinks that it is important for his daughters that they receive as much regular education as possible.

Neneng's mother is the primary caregiver. She is assisted by her oldest daughter who sometimes watches over Neneng, plays with her, or carries her around in a slendang. Neneng's father is rarely at home during the daytime, except for the weekends. He gets work in a steady flow of projects and is rarely unemployed. He starts at seven o'clock

in the morning and comes home at about five or six o'clock in the afternoon. In order to save money, he travels to some of his jobs by bicycle, which is an extraordinary thing to do for commuters. In the weekends, they sometimes go out to stroll in the neighborhood. A short excerpt illustrates the role of Neneng's sister's role in the daily caregiving of Neneng:

"Neneng is playing on a fallow plot of land in front of the house. Her mother is watching her from the shades while sitting on the veranda. There are a lot of stones and piles of sand. Her sister is with her. Neneng has old pots, pans, and a plastic bag. She is carrying a board. It looks like she is playing house. She is playing in a concentrated manner. Her sister gets a bottle with cold tea out of the house. They drink by turns. The last drop is drunk by Neneng's sister which annoys Neneng greatly. Her sister gives Neneng the bottle and Neneng wants to put sand in it. Her sister does not allow this and takes the bottle. Neneng's mother tells her 'Look Neneng starts crying, give it back to her'. Neneng stands straight and cries loudly. Her sister is not convinced and throws the bottle on the veranda. Mother says that it is dirty to throw the bottle over there. Neneng's sister grumbles. Mother fills the bottle with water and gives it to Neneng's sister who brings it to Neneng. Neneng does not want the bottle anymore and is still crying softly. Her sister carries Neneng to her mother. Neneng sits on the lap of her mother and looks tired and sad." (Narrative report 19-6-1991, case 43, 11:45-12:00 hrs.)

During home observations, Neneng's mother has often behaved rather shy and preoccupied with her youngest child. Her husband behaves very seriously and responsible, but is not actively involved in the daily care of raising Neneng. Part of the daily routine between Neneng and her mother is illustrated by an excerpt from one of the specimen descriptions:

"Neneng's mother carries Neneng and they enter the house. They go and sit on a tikar on the floor. Neneng sits on her mother's lap and smiles to a friend who makes fun outside. She stands on her mother's lap. Neneng sits again and her mother starts breastfeeding her. During drinking, Neneng looks through the door at a friend who is playing on the veranda. Neneng also holds her thigh with one hand, moves her feet, and covers her legs with her skirt while drinking. She stops drinking one breast and continues with the other. She slaps her thigh and claps her hands. Neneng stops drinking, stands up, and approaches the wardrobe. Then she squats near her mother and again drinks some milk. She sits on the tikar and opens and closes the door of the wardrobe. After a while, she lays down on the floor. Her mother picks her up and breastfeeds her again. Neneng stops drinking and sits on her mother's lap and looks outside. She lays herself down on her mother's lap. Mother gives her a car with a string. Neneng pulls the string. Then she stands up and pulls the car behind her. She picks up a knife and walks outside. There, Neneng tries to cut the string of the car with the knife. Mother asks her to pick up some laundry that has fallen down. Her mother puts the knife inside the house again. Neneng picks the piece of laundry and puts it on a chair that is standing on the veranda. Neneng runs of the veranda and returns again. She stands still and looks at a friend who is crying. Neneng picks some plants and looks for

the knife. She asks her mother where the knife is and her mother tells her to store the car. Neneng puts the car inside the house." (Specimen description 7-8-1991, case 43, 15:00-16:30 hrs.)

In the preceding chapter, ratings have been used to describe of the quality of support that Neneng's mother provides for Neneng at home and in the structured play session. At home, Neneng's mother was rated on Ainsworth's nine-point sensitivity scale in between sensitive and inconsistently sensitive (6) because she attended to many of Neneng's needs and signals and was highly focused on the well-being of Neneng. At times, however, her interventions and interactions were somewhat out of tune with Neneng's tempo, state, and communication. Seven-point rating scales, used to rate maternal behavior in the structured play session, showed that Neneng's mother provided very little emotional support (supportive presence=2) and did very little to support the validity of the Neneng's individuality (respect for autonomy=4). Neneng's mother did not show signs of rejection (hostility=1). During the session, she established reasonable structure for the child but her behavior showed inconsistencies across tasks (structure and limit setting=4). Her assistance was inadequate for much of the session although she effectively structured some parts of the tasks (quality of instruction=3). Taken together with the information from the vignette, it appears that Neneng's mother was better able to provide support at home than in the structured play session.

### The Father and Mother of Koswara

Koswara is two and a half years old, the youngest child of five siblings, and lives in Sheraton. He has four sisters with the oldest being 22 years of age and the youngest sister nine years of age. Koswara's parents intended to have only four children and his mother used contraceptives for seven years after the birth of the fourth child. However, she became very corpulent and got black spots of pigment in her face (what is more often found to be side-effects of the pill in this region) and decided to stop. The result of stopping with contraceptives has been the conception of Koswara. The parents of Koswara are very glad that he is healthy and a boy.

The family of Koswara lives in a two-storey house with a living room, a kitchen and a bedroom downstairs and three bedrooms upstairs. In front of the house is a small and rather dark fenced yard and a warung of Koswara's family. In the living room is some worn-out furniture, a television set, and a sewing machine.

Koswara's mother has been born in a rural area not far from Bandung. She is from a family with 12 children of which 8 died at a young age. She is the ninth sibling. She has two older brothers and a younger sister. Koswara's family regularly visits the younger sister of Koswara's mother who still lives in their place of birth. Her parents are deceased. The father of Koswara is born in the present neighborhood and the second child of a family of 11 children. Most of his brothers and sisters are now living in different places. Koswara and his family often go and visit the parents of Koswara's

father.

Koswara's parents are married 24 years ago when his mother was 16 years old and his father 21 years old. In the first four years of their marriage, the couple has lived in the house of the parents of Koswara's father. In contrast to his siblings, the father of Koswara --being one of the oldest-- only finished primary school. He has done all kinds of jobs among which a traveling photographer. He shows the researcher the camera and explains that he does not want to sell it because one of his children might like to use it one day. The photographer business is not very profitable any more because of the increasing number of fellow photographers in the trade and the fact that more people own cameras themselves. He has also played the kecapi (Sundanese string instrument) in a band. Nowadays, he still likes to play the kecapi and has made a small one for Koswara because Koswara wants to join his father when he is making music. Nowadays, he works as a chauffeur or a welder of iron gates when one of his relatives needs an extra employee. The rest of the time, he helps his wife who runs a small outdoor restaurant (warung makan).

The mother of Koswara has finished three years of secondary education. She is the 'engine' behind the restaurant and rents six rooms to students. Every morning at four o'clock, she goes to the market (pasar) to do shopping for the restaurant. She prepares all the food for the restaurant herself. Koswara's mother is assisted by her husband and children. Three daughters still go to school and have their own tasks in the household: one of the daughters does the washing of the cloths, another helps in the restaurant, and one does the cleaning of the house. The oldest daughter has finished six years of secondary education and works as a hairdresser. Koswara's father often gives his wife a hand by boiling water, cooking rice, or cutting vegetables like the following short excerpt of a narrative report illustrates:

"Mother sits on the floor in the living room and is busy making cookies. Father has cut three bunches of kangkung (sort of wild spinach). There are still some beans on the stove. He gets it off and tells his wife that she forgot them. Mother does not respond to the reproach but asks him to peel the potatoes. Father goes to the kitchen and starts peeling them. Mother tells him to peel three kilos (potatoes are used as vegetables in Indonesian dishes)." (Narrative report 26-3-1992, case 74, 11:00-11:05 hrs.)

The tie between Koswara and his father is very close according to his mother. Father often engages Koswara. Together, they go out to the market or shops for an errand. Koswara is very annoyed when he is not allowed to follow his father on such occasions. They also play games together at home and Koswara's father likes to give him all kinds of toys. He thinks it is a pity that Koswara still likes to destroy toys. Koswara seems to become content only after all pieces of the toy are taken apart ("seperti baru puas, kalau mainan rusak sekali"). The father of Koswara sometimes fixes the toys again with all kinds of material such as sandals for tiers of a car. Koswara likes to play with water and mud and his father allows him to do that. He even gives Koswara all kinds of useful things for this game such as a tub of water, little plastic cups, a can, and little puppets. When Koswara's mother is away for some shopping and Koswara remembers

her being away, Koswara gets anxious and wants his mother to be at home. Koswara's father does not like it when Koswara gets into that mood and tries to distract him. One of the games that helps best is playing with water.

Koswara and his mother are also very close. Koswara misses his mother when she is away. When she is at home he likes to show her things that he enjoys like a funny character on the television or a game that he is playing. According to his mother, Koswara has a good command of the language for his age. He is able to make himself clear and pronounces the words understandable. Koswara still gets breastfed when he asks for it. That is about once or twice each night and once or twice in the daytime. Koswara's mother finds it too exhaustive to wean him and she lets Koswara decide for himself when he wants to stop. In the daytime, he tends to forget the breast when he is busy playing. The casualness in which he still likes to be breastfed is shown in the next short excerpt:

"Mother is sitting on the couch in the living room. Also present are some of the students who rent a room and eat their meals from the restaurant (anak kos). They are watching television. Koswara is playing outside with some toys. He comes inside the house in a merry mood. He teases one of the students and then sits on his mother's lap. Koswara is given the breast and he soon falls asleep" (Narrative report 4-3-1992, case 74, 10:45-10:55 hrs.)

Koswara's mother says that she is more lenient with Koswara than she has been with her daughters because he is the only boy. He can be very naughty (nakal) when he wants to have everything that mobile vendors offer. Often he gets what he wants but mother tries to be somewhat strict too, as shown in the next excerpt:

"Koswara is playing with a friend outside. They have two inflated dolls. His doll loses air. When his doll is too flabby, he runs inside and asks his mother or the researcher to blow it firm again. After a while he returns wheaning because he wants some candy (jajan) from the restaurant. His mother tells her daughter to give him one. Her daughter says "but he wants chewing gum!". Mother says that it is okay. Koswara wants to go outside but his mother calls him back. She says "listen to me, if it is no longer sweet, you have to throw it away. Do you understand?". Koswara tells her that he has understood her well and goes outside." (Narrative report 26-3-1992, case 74, 11:40-11:45 hrs.)

Mother likes her children to be as highly educated as possible because she thinks that knowledge will not get lost as easily as money. However, not all of her daughters like to continue after secondary education. Mother accepts that not all children have the ability to learn a lot but she sincerely hopes that Koswara does.

In order to catch a glimpse of Koswara's daily life, an excerpt from the specimen descriptions is included. It shows other persons than his parents to also be part of his life:

"Koswara is in the yard. Before walking inside, he takes his shoes off. He sits on the

floor and holds an inflated doll. His two-year old friend has joined him. They are talking about the doll. Koswara puts his shoes on and walks to the neighbor's house. He takes a shoe of his friend with him and hides it behind a concrete fence. Koswara walks towards his house again and goes to the kitchen to see who is there. Then, he goes into the living room where his friend is still playing and two students are sitting watching television. He fights over a small spoon with his friend. Koswara sits on the floor again and strokes his hair until it is all tousled. He watches television for a while. Koswara goes outside again and takes the spoon with him. From a bench outside he throws shoes on the ground and takes a sock. He takes the sock with him and enters the neighbor's living room. He is given a cookie by his neighbor. He eats it and walks outside. He sits on a chair outside while he is eating. His sister calls him. Koswara runs in the neighbor's house and hides for his sister. After a while he goes outside again where he climbs on the fence. His sister spots him and teaches him not to be naughty. She carries him and puts him in front of the neighbor's house. He walks inside. Immediately, his sister reprimands him and tells him not to enter other people's houses. He runs out of it again towards his sister. She carries him home and gets a slendang to be able to carry him in a cloth. They go into the bathroom where his sister wants to bath Koswara. He does not want to be bathed by her and tells her he wants to bath himself. He walks to the kitchen and asks his mother if he may bath himself. Koswara's mother agrees and takes his cloths of. His sister follows him to the bathroom." (Specimen description 29-3-1992, case 74, 15:00-15:30 hrs.)

The vignette shows the mother of Koswara to run a relatively well-organised household and to receive considerable support from her husband and older children. Koswara's mother enjoys raising Koswara and is often able to give Koswara the attention and support that he needs. At times, she is very busy with her business and then too occupied to notice Koswara's needs and wishes. In the preceding chapter, ratings have been analyzed of the quality of support that the mother provides her child in two settings. At home, Koswara's mother was rated to be inconsistently sensitive (5) on the nine-point scale, which means that she can be quite sensitive on occasion but also has periods in which she is insensitive to Koswara's communications. In the structured play session, she provided good support, reassurance, and confidence in the child's ability, but faltered in this at times when Koswara especially could use more support (supportive presence=5). She behaved moderately intrusive (respect for autonomy=4) and showed no signs of rejection (hostility=1). Furthermore, Koswara's mother established her agenda and was authoritative and consistent in her leadership efforts (structure and limit setting=6). She provided adequate structure and instruction for the child to work on the tasks but her instructions were lacking in major ways at several points during the session (quality of instruction=4). This vignette has shown the ratings of the quality of maternal support to be understandable in relation to Koswara's parenting context.





## **Chapter 6**

### **Children's Immediate Environment in Detail:**

#### **The quality of the home and the quality of maternal support in two Indonesian communities**

##### **Abstract**

The quality of the home of 77 Indonesian children under 6 years of age and the quality of support provided by their mothers were examined in two socio-economically different urban communities. Firstly, this study investigated the interrelations among various measures representing the quality of the home and the relation between the quality of the home and the quality of maternal support. More measures of the quality of the home of preschoolers were found to be interrelated compared to those of the home of infants and toddlers. Furthermore, the quality of the home proved to be significantly related to the quality of maternal support for children of 0-to-6 years of age. Secondly, this study examined the relation of socio-economic status, gender, and age with the quality of the home and the quality of maternal support. Both the quality of the home and the quality of maternal support were positively related to socio-economic status, but not to the child's gender and age.

The present chapter provides a detailed description of Indonesian children's immediate environment. In the preceding chapters, the caregiving context has been described at three levels. The present chapter zooms in at the level of the immediate environment that is assumed to influence the development of children most directly. Two components of the immediate environment are highlighted here: the quality of the home in which children live and the quality of support children receive from their mothers. The immediate environment is furthermore studied in detail by investigating differences between two socio-economically different urban communities. In this way, the findings of the fourth chapter are extended by including a comparison between the two communities for the two components of the immediate environment distinguished in this chapter. Furthermore, gender and age differences in the quality of the home and the quality of maternal support are examined. In this way, the present chapter aims to provide a detailed description of the quality of the home and the quality of maternal support for Indonesian boys and girls in infancy, toddlerhood, and preschool age living in two socio-economically different urban communities.

The immediate environment is supposed to play an important role in the development of children. For instance, a home which contains stimulating materials, is safe, and provides various experiences to the child may enhance the child's development whereas an impoverished environment may endanger its development (e.g., Bradley et al., 1989; Erickson, Sroufe, & Egeland, 1985). Or, a caregiver who responds to the child's social and emotional needs contributes to the child's feelings of security. If a

child feels secure enough, it will be more inclined and motivated to explore the environment and learn from it (Bowlby, 1969). The role of children's immediate environment for their development has been studied from different theoretical perspectives using conceptualisations varying widely in their specificity, breadth, and level of analysis (e.g., Bradley & Caldwell, 1995; Super & Harkness, 1986; Wachs & Gruen, 1982; White & Watts, 1973; Whiting & Edwards, 1988).

Investigators studying the influence of the immediate environment upon development often make an implicit distinction between the social environment with its transactions between children and caregivers and the physical environment with its settings and objects (Wachs, 1989). Although a clear demarcation line can not be drawn between them, it is important to distinguish between the social and physical environment in order to learn of its separate contributions to children's development. According to Wachs, developmental psychologists often neglect the physical environment assuming that the social environment is the more important contributor to children's development.

Wohlwill and Heft (1987) proposed to use the animate-inanimate dimension in order to differentiate between the physical and social environment. Wachs (1989) argues that this dimension is not enough because, for instance, an environment characterized by several nonresponsive persons in the background (e.g., crowding) can not be called social solely on the ground that there are people present. To more clearly distinguish between the social and the physical environment, Wachs (1989) has defined a classification system that includes a physical-social environment continuum with categories that primarily belong to the physical environment on one end and categories that primarily belong to the social environment on the other end. Besides the animate-inanimate dimension, Wachs identified two additional dimensions to characterize environmental categories: background vs. focal and responsive vs. nonresponsive. A category classified as primarily social is, for instance, defined by focal, responsive, and animate dimensions such as parents' responding to children's vocalisation. The physical structure of the home and presence of nonresponsive toys are examples of the category "background, nonresponsive, and inanimate" located on the primarily physical end of the continuum. Another example on this end of the continuum are audio-visually responsive toys that are responsive, inanimate and, dependent upon the child's attention, either background or focal. Crowding is an example of the category "background, nonresponsive, animate" and located on the continuum near the primarily physical environment. The expanded classification system of Wachs shows the distinction between animate and inanimate not to be interchangeable with the distinction between the social and the physical environment.

The present study distinguishes between two components of the immediate environment: the quality of the home and the quality of maternal support. Both contain social and physical features, but quality of support is predominantly 'social' in nature, whereas quality of the home contains more 'physical' elements. The quality of the home is a concept adapted from the HOME: an instrument that assesses "the quality of stimulation and support available to a child in the home environment" (Bradley et al., 1989). Measures of the quality of the home can be found on the full scale of the physical-

social environment continuum. Measures of the physical environment are, for instance, the availability of stimulating play materials and the organization of the environment. With this instrument, the social environment is assessed by measures such as parental involvement and pride and affection. These various measures of the home environment have been found to be related to cognitive development of children in the first three years of life (Bradley et al., 1989).

The quality of maternal support is primarily found at the social end of the physical-social environment continuum. Mother-child interaction was observed in two settings: at home and during a structured play session elsewhere. In the preceding chapter, the concept of the quality of maternal support has already been introduced. It is related to the concept of the quality of parental care used by attachment theorists (e.g., Sroufe, 1988). In short, the quality of support refers to the way in which parents support their children's well being and development during daily interaction in various settings. Several elements of high quality support were measured: the provision of emotional support, respect for the child's autonomy, the absence of hostility, structuring the situation adequately, and the provision of clear, well-timed, and adequate instructions and information (see Chapters 3 and 5).

In the present investigation, the question was also raised whether Indonesian mothers provide a comparable home environment and the same quality of maternal support to their daughters and sons. The Indonesian government promotes the equal valuation of sons and daughters by great billboards on the roadside. This policy is linked with the campaign to promote the use of anti-conceptives in persuading the parents that two children are enough regardless of them being two boys or two girls. Is the actual immediate environment similar for daughters and sons?

Besides gender, age is another factor that might make a difference for the immediate environment of Indonesian children. It has been reported that Indonesian parents are less lenient to their children after the children become five or six years of age (Geertz, 1961; Adimihardja & Utja, 1991). From these studies, it is not clear if this change is gradual or rather abrupt. Therefore, in the present study several age groups were distinguished between the age of 0 to 72 months in order to investigate whether the immediate environment of infants differed from that of, for instance, preschoolers. Parents might organize the immediate environment better for preschool children than for younger Indonesian children since the younger children are mostly carried around during their waking hours. The quality of maternal support is not expected to differ much across the different age groups because it is generally assumed to be a rather stable maternal characteristic and independent of mothers' carrying of children.

A further factor of possible relevance in relation to the quality of the home and the quality of maternal support is the socio-economic status of the family. It is generally assumed that the home of children living in poverty is of poor quality. Furthermore, in poor families caregiving stresses are often more abundant with as a consequence that caregivers cannot provide the same quality of support to a child as caregivers in more well-to-do families (McLoyd, 1990). In the preceding chapter, it was shown that the quality of maternal support was especially related to educatedness, wealth, and

preventive health measures of the family. In a large North American sample of studies using the HOME, however, across the first 3 years of life no consistent relation has been found between the quality of the child's home and the family's socio-economic status (Bradley et al., 1989). The quality of the home was more strongly related to cognitive development of children in this age group than to the family's socio-economic status. From this it appears that poverty itself does not uniformly have to lead to poor developmental outcomes for young children. The quality of the home and the quality of maternal support may not be uniform across families with the same socio-economic status (e.g., Bradley et al., 1994b).

The families in the present study came from two socio-economically different urban communities or 'kampungs' called Loompoor and Sheraton, located in Bandung, Indonesia. The first community, Loompoor, lays at the outskirts of the city and was quite difficult to reach by most means of transportation. In general, difficult to reach communities contain a majority of low SES families in Indonesia whereas more easy to reach communities are more heterogeneous. From Loompoor, low SES families were recruited. The second community, Sheraton, was located much nearer to a main road. From Sheraton, only low-middle SES families were selected. Thus, the low and low-middle SES families in the present study lived in two different communities.

In sum, the present chapter focuses on the quality of the home and the quality of maternal support of Indonesian girls and boys between 0-to-6 years of age from low SES and low-middle SES families living in two different urban communities. The interrelatedness among various measures assessing the quality of the immediate environment was examined. Differences in the immediate environment of girls and boys of different ages living in the two communities were also investigated.

## Method

### Subjects

The sample consisted of 77 children under six years of age (BALITA). Five age groups were distinguished: infants (0-12 months; 6 girls, 6 boys), young toddlers (13-24 months; 8 girls, 7 boys), older toddlers (25-36 months; 8 girls, 8 boys), young pre-schoolers (37-54 months; 7 girls, 10 boys), and older pre-schoolers (55-72 months; 8 girls, 9 boys). The split between the two last age groups was determined by the age of pre-school entrance in Indonesia. Addresses were obtained from local health centra and a door-to-door census (Zevalkink et al., 1995). The total sample originally consisted of 80 children and their families. Data of three children were incomplete for reasons of unexpected moving ( $n = 1$ ), work overload because of twin babies ( $n = 1$ ), and a long absence due to visiting relatives ( $n = 1$ ). No family had refused to participate. Most families had already met the author in a local Health Registration Centre where she started working as a volunteer prior to the data collection.

The families were of Sundanese ethnicity and adhered to the islamic religion.

Socioeconomic status of the family was based on income, occupational status of the parents, and parental level of education. Low SES was defined by a family income between 80,000 and 200,000 Rupiah per month in 1992/1993; parents were unskilled or semi-skilled labourers; and parents had primary school as maximum level of education ( $n = 47$ ). Low-middle SES was defined by a family income between 200,000 and 500,000 Rp/month in 1992/1993; parents had skilled labour or white-collar jobs; and parents had high school as maximum level of education ( $n = 30$ ). The population of West Java has a larger proportion of low SES families than low-middle SES groups, which is also reflected in the present sample.

### Procedure

Mothers and children were visited at home by the first author and local research assistants. During the visits, mothers were interviewed and observations were made of mother and child during the day (narrative reports and specimen descriptions). Moreover, the visitors completed the HOME for assessing the quality of the home environment. After the collection of all data at home, mothers and children were invited to a structured play session in a local facility where mother-child interaction was videotaped (see Chapters 3 and 5 for a more detailed description of the procedure).

### Instruments and measures

Quality of the home. The 'Home Observation for Measurement of the Environment' (HOME) Inventory (Caldwell & Bradley, 1984) was used to assess the quality of stimulation provided by the child's immediate home environment. The HOME Inventory for Infants / Toddlers (IT-HOME) was administered with 41 children aged 0-36 months. The Early Childhood HOME (EC-HOME) Inventory was administered with 36 children aged 37-72 months (at the time of administration two toddlers had become older than 36 months). The IT-HOME and the EC-HOME were administered according to the standard procedure by one of the research assistants and the author. The IT-HOME had already been translated into the Indonesian language by Zeitlin and Satoto (1990). The EC-HOME was translated by the author of the present study with the aid of a fluent English speaking Indonesian student.

The IT-HOME consists of 45 binary-choice items clustered into six subscales: Parental responsivity (i.e., positive verbal and emotional responses), Acceptance of child (i.e., absence of punitive responses), Organization of the environment (i.e., regularity and stimulation in the physical and temporal environment), Play materials (i.e., provision of age-appropriate toys), Involvement (i.e., degree of involvement and attention for child and its development), and Variety of stimulation (i.e., opportunities to experience variation in daily caregiving). The EC-HOME contains 55 items clustered into eight subscales: Toys and learning materials (i.e., access to stimulating materials), Language stimulation (i.e., positive verbal exchanges and stimulation), Physical environment (i.e., safe, clean, and conducive to development), Pride and affection (i.e., positive physical and verbal encouragement), Academic stimulation (i.e., encouragement to learn), Encouragement of maturity (i.e., modeling of social behavior), Variety of experiences

(i.e., variety in outdoor and indoor activities), and Acceptance (i.e., absence of punitive responses) (Caldwell & Bradley, 1984; Bradley et al., 1994b). The overall reliability of the IT-HOME was found to be moderately low (Cronbach's alpha of .52) and that of the EC-HOME satisfactory (alpha coefficient of .85). The internal consistencies of the separate scales have been examined extensively in Chapter 3. In general, this showed the IT-HOME and its subscales to be less reliable than the EC-HOME and its subscales.

Because of the small sample size compared to the number of items, a factor analysis was not conducted on the separate items of the HOME. Also, Bradley et al. (1994a) stated that the applicability of factor analysis on the HOME items to non-American cultures is still questionable. The factor structure of the HOME might capture the American home environment better than that of other cultures. However, the factor structure of the IT-HOME was investigated by Zeitlin and Satoto (1990) in a sample of 253 rural Indonesian children. As a result, they constructed five subscales: Emotional and verbal responsiveness, Play materials, Social/cultural, Acceptance, and Involvement (Appendix E). An investigation of differences between the original and the adapted subscales of the IT-HOME in the present sample did not favor the adapted IT-HOME version (Chapter 3 for a more detailed description). The EC-HOME was not investigated in a large Indonesian sample. In the present study, the original IT-HOME and EC-HOME are used for reasons of comparability with other studies.

Quality of maternal support. Quality of maternal support to the child was assessed both at home and in a structured play session. Quality of maternal support at home was assessed with the nine-point Sensitivity Scale developed by Ainsworth, Bell, and Stayton (1974). This assessment was based on the narrative reports and specimen descriptions made by the author and research assistants during the home visits. Four months after the ratings had taken place the author rated every seventh subject again; test-retest reliability was .94. Quality of maternal support during the structured play session was rated from videotape by three independent raters using five 7-point rating scales developed by Erickson, Sroufe, and Egeland (1985): supportive presence, respect for autonomy, hostility, structure and limit setting, and quality of instruction (see Chapter 3). The inter-rater reliability was expressed in Pearson correlations and computed for 16 dyads. It was .90 for supportive presence, .86 for respect for autonomy, .79 for hostility, .79 for structure and limit setting, and .89 for quality of instruction (see Chapters 3 and 5).

The five rating scales indicating quality of support in the structured play session all interrelated significantly and formed one factor in exploratory principal component analysis. By summing the five scale scores after reversing the score for hostility a composite score was constructed for quality of support provided by the mother in the structured play session. A significant Pearson correlation of .46 between the composite score of quality of maternal support in the play session and the rating of maternal sensitivity at home indicated that, as expected, these were related measures of maternal behavior in the two settings. In addition to measures for the quality of maternal support in the separate settings, a factor analysis was conducted to compute an overall score of quality of maternal support representing support at home (sensitivity scale) and support



in the play session (composite score of five rating scales) (chapter 5).

## Results

### Relations between Measures of the Immediate Environment

In this section, interrelations among measures of the quality of the home for infants/ toddlers and preschoolers were examined first. In Chapter 5, this was already done for measures of the quality of maternal support. The section ends with an examination of the relation between the two components of the immediate environment: the quality of the home and the quality of maternal support.

Quality of the home. Table 6-1 shows that there were only a few significant interrelations among the subscales of the IT-HOME. Organisation of the environment and Parental involvement were significantly correlated with Play materials. This means that involved parents provide more play materials and that the availability of play materials goes hand in hand with a well organized environment. Corrected item-total correlations showed that Play materials was the only subscale that correlated significantly.

Table 6-1  
Intercorrelations among subscales of the IT-HOME

Subscales	Infants/ Toddlers HOME						Total <sup>1</sup>
	1	2	3	4	5	6	
1. Parental Responsivity	...	-.07	-.24	.07	.01	.23	-.01
2. Acceptance of child <sup>2</sup>		...	.08	.08	.13	.09	.10
3. Organisation of the environment			...	.29*	.18	.18	.17
4. Play materials				...	.35*	.15	.38 *
5. Parental involvement					...	-.04	.26
6. Variety of stimulation						...	.24

Note. IT-HOME = Infant/ Toddler-Home Observation and Measurement of the Environment. <sup>1</sup> Corrected item-total correlations. <sup>2</sup> Previously entitled 'Avoidance of restriction and punishment'. \*  $p < .05$ , \*\*  $p < .01$  (one tailed).  $N = 41$ .

From Table 6-2 it becomes clear that subscales of the EC-HOME were significantly intercorrelated, except for the scales Physical environment and Acceptance. These two subscales also did not show a significant corrected item-total correlation whereas all other subscales did. A high quality home environment of Indonesian preschoolers is characterized by the availability of toys and learning materials, a variety of experiences, caregivers' stimulation of the child's language development, academic behavior, and maturity, and pride and affection shown by the caregiver.



Table 6-2  
Intercorrelations among subscales of the EC-HOME

Subscales	Early Childhood HOME								Total <sup>1</sup>
	1	2	3	4	5	6	7	8	
1. Toys and learning materials ...		.63**	.23	.36 *	.54**	.63**	.64**	-.07	.74**
2. Language stimulation <sup>2</sup>			.32*	.55 **	.24	.59**	.53**	.08	.74**
3. Physical environment				-.16	.02	.19	.01	.12	.16
4. Pride and affection					.30*	.48**	.32*	.04	.43**
5. Academic stimulation						.18	.29*	.02	.41*
6. Encouragement of maturity							.66**	.10	.72**
7. Variety of experiences								.03	.63**
8. Acceptance <sup>3</sup>									.05

Note. EC-HOME = Early Childhood-Home Observation and Measurement of the Environment. <sup>1</sup> Corrected item-total correlations. <sup>2</sup> Previously entitled 'Positive social responsiveness'. <sup>3</sup> Previously entitled 'Avoidance of restriction and punishment'. \*  $p < .05$ , \*\*  $p < .01$  (one tailed).  $N = 36$ .

Correlations between the quality of the home and the quality of maternal support. First, the relation between the quality of the home and the quality of maternal support was examined for 0-3 year olds. The upper half of Table 6-3 presents the results. Overall, quality of the home environment, as expressed in the IT-HOME total score, was significantly related to both maternal support measures as well as to the overall quality of maternal support. Investigation of correlations of the separate subscales of the IT-HOME shows the subscales Organisation of the environment, Play materials, Involvement (the three that were interrelated), and Variety of stimulation to be significantly correlated with the overall measure of quality of maternal support. This means that mothers who provide higher quality support to their child organize the child's environment better, provide more play materials, show more parental involvement, and give the child more variety in stimulation than mothers who provide lower quality support to their child. In some cases, the height of the correlations between subscale scores and quality of maternal support depended upon the setting in which the quality of support was observed. For instance, Organisation of the environment was significantly related to the mothers' sensitivity at home, but not to the quality of support they provided in the structured play session<sup>1</sup>.

<sup>1</sup> To investigate which specific aspects of the quality of maternal support in the structured play session were related to the quality of the home environment, correlations between the five rating scales of support in the play session and the measures of the quality of the child's home environment were examined. There were four significant correlations in three of which quality of instruction was involved on the part of the quality of support measures. Quality of

Second, correlations between the quality of the home of 3-6 year olds and the quality of maternal support are depicted in the lower half of Table 6-3. The EC-HOME total score and five of its eight subscales were related to the overall quality of maternal support. Mothers who provide higher quality support to their child also provide more toys and learning materials, stimulate their child's language development more, more often show the child pride and affection, encourage the child's maturity, and give the child more variety in stimulation compared to mothers who provide lower quality of support. The correlations with the quality of the child's home showed a similar pattern

**Table 6-3**  
**Correlations between Quality of the Child's Home and Quality of Maternal Support for Infants/ Toddlers and Preschoolers**

	Quality of maternal support		
	Play session <sup>1</sup>	At home	Overall <sup>2</sup>
<b>Infants/ Toddler HOME</b>	<b>(N = 40)</b>	<b>(N = 41)</b>	<b>(N = 40)</b>
Parental responsiveness	.22	.08	.17
Acceptance of child <sup>3</sup>	.11	-.17	-.04
Organisation of the environment	.13	.33 *	.27 *
Play materials	.24	.26	.29 *
Parental involvement	.27 *	.42 **	.41 **
Variety of stimulation	.31 *	.31 *	.36 *
IT-HOME total	.42 **	.40 **	.48 **
<b>Early Childhood HOME</b>	<b>(N = 36)</b>	<b>(N = 36)</b>	<b>(N = 36)</b>
Toys and learning materials	.41 **	.57 **	.61 **
Language stimulation <sup>4</sup>	.34 *	.66 **	.60 **
Physical environment	-.22	.19	-.01
Pride and affection	.32 *	.46 **	.46 **
Academic stimulation	.08	.11	.11
Encouragement of maturity	.30 *	.74 **	.61 **
Variety of experiences	.28 *	.61 **	.53 **
Acceptance <sup>3</sup>	.21	.21	.25
EC-HOME total	.36 *	.74 **	.66 **

Note. HOME = Home Observation and Measurement of the Environment. <sup>1</sup> Composite score of five 7-point rating scales. <sup>2</sup> Overall factor score of quality of maternal support composed of support at home and support in the play session. <sup>3</sup> Previously entitled 'Avoidance of restriction and punishment'. <sup>4</sup> Previously entitled 'Positive social responsiveness'. \*  $p < .05$ , \*\*  $p < .01$  (one tailed).

instruction was positively related to the following subscales of the IT-HOME: Play materials, Involvement, and Variety. A child who has more play materials, more involved caregivers, and more variety in experiences will have a mother who particularly provides higher quality instructions. The fourth significant (positive) correlation was between structure and limit setting and Acceptance. Living in a more accepting home is thus related to the provision of clearer structure and limits by the mother.

for quality of maternal support as assessed in the two different settings, but the correlations with maternal support as assessed in the home setting tended to be higher than those with maternal support assessed in the play session. In general, results showed that the quality of the home of 3-6 year old children was strongly related to the quality of maternal support<sup>2</sup>.

### Differences in Socio-economic Status, Gender, and Age

In this section, differences between Loompoor and Sheraton, boys and girls, and children of different ages were analysed by means of univariate statistics. Using multivariate analyses would have meant power loss due to the interactions between the dependent variables, the relatively small sample size, and the unequal number of subjects in each group (Tabachnik & Fidell, 1989). First, ANOVA's with the quality of the home measures as the dependent variables and socio-economic status, gender, and age group as the independent variables are reported. Then, with the same independent variables, results are presented of ANOVA's in which the quality of maternal support measures are the dependents.

Quality of the home. For the IT-HOME, 2 (SES: low, low-middle) x 2 (Gender) x 3 (Age groups: babies, young toddlers, older toddlers) ANOVA's were performed on the quality of the home measures. Significant main effects were found with regard to socio-economic status and age group (Table 6-4). The two SES groups differed for the subscales Parental responsivity, Organisation of the environment, Play materials, and the IT-HOME total score. In Loompoor, infants and toddlers were found to have more responsive parents, a less well organized environment, less play materials, and a general lower quality of the home than their peers in Sheraton. Main effects of age group were found for Play materials and the IT-HOME total score. Post hoc comparisons with the Scheffé method revealed no significant contrast between any of the three age groups.

For the EC-HOME, 2 (SES) x 2 (Gender) x 2 (Age groups: young preschoolers, older preschoolers) ANOVA's were conducted on the quality of the home measures for 3-to-6 year olds. There were several significant main effects for SES, one main effect for gender on Academic stimulation, as well as one significant interaction effect between SES and age group on Encouragement of maturity (Table 6-5). Toys and learning materials, Language stimulation, Encouragement of maturity, Variety of stimulation, and

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<sup>2</sup> A further examination of the relation between the five separate rating scales of the quality of maternal support in the structured play session and aspects of the home revealed intercorrelations between several scales and aspects. Among these correlations, an interesting significant negative correlation between hostility as observed in the play session and the Acceptance subscale of the EC-HOME (-.49\*\*) was found that showed us that a mother who is more hostile during the structured play session is showing less acceptance of the child's behavior at home. Although Acceptance does not appear to be related to other aspects of the Indonesian home environment, this correlation validates the measure and also reveals that hostile versus accepting behavior is detectable in the child's immediate environment.

Table 6-4  
Significant effects of SES (S), Gender (G), and Age group (A) on the quality of the home of infants/ toddlers

Means (standard deviations)									
SES			Gender		Age group			Effects	
Lo.	Sh.	n=18	Girls	Boys	1	2	3	S	A
n=23			n=20	n=21	n=11	n=15	n=15		
Parental responsivity	8.30 (1.36)	7.17 (1.51)	---	---	---	---	---	4.35*	---
Organisation of the environment	3.30 (0.97)	5.22 (0.81)	---	---	---	---	---	40.53**	---
Play materials	5.23 (1.59)	5.94 (1.43)	---	---	4.82 (1.17)	6.27 (1.67)	5.33 (1.45)	4.46*	4.77*
Total IT-HOME	27.96 (3.20)	30.11 (4.50)	29.20 (3.71)	28.62 (4.19)	27.36 (3.61)	30.67 (4.55)	28.27 (2.89)	5.86*	4.22*

Note. Lo. = Loompoor, Sh. = Sheraton, IT-HOME = Infant/ Toddler-Home Observation and Measurement of the Environment. \*  $p < .05$ , \*\*  $p < .01$ .

Table 6-5  
Significant effects of SES (S), Gender (G), and Age group (A) on the quality of the home of preschoolers

	Means (standard deviations)										Effects
	SES		Gender		Age group						
	Lo. n=24	Sh. n=12	Girls n=17	Boys n=19	4 n=18	5 n=18	S	G	A	SxA	
Toys and learning materials	2.29 (1.16)	5.92 (2.06)	---	---	---	---	42.90**	---	---	---	---
Language stimulation	4.63 (1.14)	6.08 (0.49)	---	---	---	---	15.92**	---	---	---	---
Academic stimulation	---	---	4.53 (0.62)	3.90 (0.79)	---	---	---	6.08*	---	---	---
Encouragement of maturity	0.92 (0.88)	2.92 (1.04)	---	---	1.68 (1.11)	1.59 (1.62)	43.02**	---	---	---	6.30*
Age group 4	1.09 (0.83)	2.50 (0.93)	---	---	---	---	---	---	---	---	---
Age group 5	0.75 (0.97)	3.60 (0.89)	---	---	---	---	---	---	---	---	---
Variety of experiences	4.00 (0.93)	6.23 (0.93)	---	---	---	---	50.07**	---	---	---	---
Total EC-HOME	27.95 (4.46)	38.62 (4.70)	---	---	---	---	42.08**	---	---	---	---

Note. EC-HOME = Early Childhood-Home Observation and Measurement of the Environment. Lo = Loompoor, Sh = Sheraton. \*  $p < .05$ , \*\*  $p < .01$ .

Table 6-6  
Significant effects of SES (S), Gender (G), and Age group (A) on the quality of maternal support for 0-6 year old children

Means (standard deviations)														
SES			Gender		Age groups					Effects				
Lo. n=47	Sh. n=30	Girls n=37	Boys n=40	1 n=11	2 n=15	3 n=15	4 n=18	5 n=18	S	G	A	SxG		
Supportive presence	3.06 (1.29)	---	---	---	---	---	---	---	5.70*	---	---	---		
Respect for autonomy	4.02 (0.99)	4.03 (1.07)	4.10 (0.91)	---	---	---	---	---	---	---	---	5.71*		
girls	3.80 (1.04)	---	---	---	---	---	---	---	---	---	---	---		
boys	4.27 (0.88)	---	---	---	---	---	---	---	---	---	---	---		
Structure and limit setting	---	4.43 (1.24)	5.00 (1.19)	---	---	---	---	---	---	3.59+	---	---		
Quality of instruction	3.45 (1.28)	3.97 (1.66)	3.41 (1.50)	3.87 (1.34)	2.18 (1.17)	4.07 (1.00)	3.62 (1.15)	3.94 (1.51)	4.02*	---	4.71**	5.77*		
girls	2.96 (1.34)	4.33 (1.44)	---	---	---	---	---	---	---	---	---	---		
boys	4.00 (0.98)	3.71 (1.79)	---	---	---	---	---	---	---	---	---	---		
Sensitivity at home	5.31 (1.57)	6.47 (1.16)	---	---	---	---	---	---	14.62**	---	---	---		
Support in play session	22.02 (4.16)	23.66 (4.22)	21.89 (4.81)	23.36 (3.51)	20.18 (3.12)	23.43 (3.63)	23.37 (4.47)	22.83 (3.15)	22.71 (5.71)	---	---	4.69*		
girls	20.60 (4.56)	24.58 (4.34)	---	---	---	---	---	---	---	---	---	---		
boys	23.64 (3.02)	23.00 (4.14)	---	---	---	---	---	---	---	---	---	---		

Note. Lo. = Loompoor, Sh. = Sheraton. \* p = .06, \*\* p < .05, \*\*\* p < .01.

the EC-HOME total score differentiated the two communities significantly. In Loompoor, preschoolers were found to have less toys and learning materials, to be less stimulated in language, to be less encouraged to behave mature, and to be given less opportunities for various experiences than their peers in Sheraton. A significant main effect for gender was found for the subscale Stimulation of academic behavior with girls being given more stimulation than boys. The interaction effect between SES and age group for Encouragement was further examined. Post hoc comparisons with the Scheffé method revealed significant differences between four groups: the maturity of young preschoolers from low SES families was less encouraged compared to the maturity of both young and older preschoolers from low-middle SES families. The same contrasts were found for older preschoolers from low SES families.

In general, the results with both the IT-HOME and the EC-HOME showed the quality of the home of 0-6 year old children to be significantly lower in Loompoor than in Sheraton. The results showed the differences to be stronger in the homes of 3-6 year olds than in those of 0-3 year old children.

Quality of maternal support. The quality of maternal support measures were similar for 0-6 year old children. Therefore, ANOVA's could be conducted for children from 0-6 years of age. Six  $2 \times 2 \times 5$  ANOVA's were conducted to investigate the effects of SES, gender, and age group on the six quality of maternal support measures. Significant main effects were found for SES and age group, two way interaction effects were found between SES and gender, and a nearly significant main effect of gender on structure and limit setting (Table 6-6). Low SES mothers provided less emotional support, lower quality instructions, and were less sensitive at home compared to low-middle SES mothers. There was a significant main effect for age group on quality of instruction. Post hoc comparisons with the Scheffé method did not reveal significant contrasts between groups. Interaction effects between SES and gender were found for respect for autonomy, quality of instruction, and the composite score of quality of maternal support in the play session. Again, post hoc comparisons did not yield significant contrasts between groups. A nearly significant main effect of gender on structure and limit setting showed a tendency for mothers to give boys more structure and limits in a structured play session than girls.

### Conclusions and discussion

From the investigation of the immediate environment of Indonesian children, three main conclusions can be drawn. First, the quality of the home appears to be less coherent for infants and toddlers than for preschoolers. Second, the quality of the home is related to the quality of support provided by the mother, although this relation appears to be stronger for preschoolers compared to infants and toddlers. The third conclusion states that most of the differences in the qualitative aspects of the immediate environment are related to differences in socio-economic status of the family in which the child lives and not to differences in the child's gender and age.



The first conclusion implies that the various aspects of the home environment of Indonesian infants and toddlers do not show the same pattern of interrelatedness as found in North American samples. There are two possible explanations. First, qualitative aspects of the Indonesian home environment only start to become more coherent after toddlerhood. Indonesian caregivers might not give high priority to attune the immediate environment to their infants and toddlers needs because they carry them around most of the time for fear of hazards or infections. Therefore, it is possible that caregivers will focus more on the stimulating aspects of the environment after the children have become toddlers. Further investigation is certainly warranted.

A second explanation concerns the reliability and validity of the measurement of the quality of the home. The internal consistency of the EC-HOME has proven to be satisfactory in contrast to the internal consistency of the IT-HOME. It might be inferred that the HOME is not very reliable in measuring the quality of the home for Indonesian infants and toddlers. Construct validity can be examined by looking at the relations between the quality of the home measures and the quality of maternal support measures. For preschoolers, the quality of the home measures are validated by the significant correlations found with the quality of maternal support both at home and in the structured play setting. For Indonesian infants and toddlers, however, this picture is somewhat more complicated. On the one hand, the relation between, for instance, parental involvement and variety of stimulation, both aspects of the quality of the home, and the quality of maternal support measures in both settings validates these subscales. On the other hand, however, no such relation was found between parental responsiveness, another aspect of the quality of the home, and the quality of maternal support. In general, significant relations between most of the quality of the home measures and the quality of support assessed at home and in a structured play session underlined the interrelatedness of these two components of the immediate environment of infants and toddlers and provided some prove for its construct validity. More research is needed to investigate the reliability and validity of the measurement of the quality of the home for Indonesian infants and toddlers.

How about the interrelatedness of physical and social aspects of the immediate environment? Both for infants/ toddlers and preschoolers, two subscales measuring the quality of the home are located on the physical end of Wachs' physical-social environment continuum: the availability of toys and learning materials (or 'play materials' for infants and toddlers) and the organisation of the physical environment. Primarily social aspects of the home were measured with the subscales parental responsiveness, acceptance and parental involvement for infants and toddlers and the subscales language stimulation, pride and affection, encouragement of maturity, and acceptance for preschoolers. The remaining subscales can be found in the centre of the physical-social environment continuum. First, the interrelations of the measures of the quality of the home for infants, toddlers, and preschoolers made clear that some physical aspects of the home, such as play materials for infants and toddlers and toys and learning materials for preschoolers, were more related to social aspects, such as parental involvement of infants and toddlers and pride and affection for preschoolers, compared

to other physical aspects of the home such as the organisation of the physical environment. The physical aspects that were related to social aspects of the home were also found to be related to the quality of maternal support. From this study it appears that the two physical aspects of the environment can relate quite differently towards social elements in the immediate environment. Probably, parents can not influence the organisation of the physical environment as much as the provision of play and learning materials. In future studies, it might be interesting to investigate the relative contribution of physical and social aspects to developmental outcomes of children in order to establish their relative importance. In the next chapter the quality of attachment will be related to the quality of maternal support and contextual variables.

The relation of socio-economic status with aspects of the immediate environment has proven to be quite strong. Although the relation was stronger for preschoolers, it is evident for both the immediate environment of preschoolers and that of younger children. Socio-economic status differences were not only found with regard to physical aspects but also for social aspects of the immediate environment. In other words, the wealth of a family is not only associated with the physical appearance of the home environment but also with the social quality of the home and the quality of the support that a mother is able to provide across different settings.

After investigation of gender effects the conclusion can be drawn that the immediate environment did not differ greatly for Indonesian boys and girls. The only differences that were found appeared to be related to scholastic preparation measured as academic stimulation. At home, mothers encourage girls more in learning things like colors, numbers, or rhymes compared to boys. This might be explained by the play area of girls being located nearer to the house than that of boys (e.g., Whiting & Edwards, 1988). A nearly significant main effect of gender on structure and limit setting showed that Indonesian mothers tended to provide more structure and limits to their sons than to their daughters. This finding is rather universal. In general, boys have been found to elicit more structure and limit setting because of their activeness in exploring the environment and being less obedient to their mother's requests (e.g., Block, 1983; Whiting & Edwards, 1988). In conclusion, Indonesian mothers can be said to practice equal treatment of boys and girls.

Does the age of the child make a difference in the immediate environment of Indonesian children? In the present research the demarcation of age groups has been approached in two ways. One approach is the division into two groups: infants/ toddlers and preschoolers. Here, some age differences were found and discussed previously. For instance, the immediate environment of infants and toddlers proved to be less interrelated compared to the home of preschoolers. The second approach is the distinction into five age groups. Here, age differences were not found to be very great for 0-6 year old Indonesian children. Only two, highly interpretable, differences between age groups were found for the provision of play materials and the quality of instruction. However, no two age groups differed significantly. Although the quality of the home seems to be more interrelated for preschoolers than for infants and toddlers, in general, the quality of the home and the quality of maternal support of Indonesian children do not

appear to change dramatically in the first six years of their lives.

Finally, the issue of generalizability has to be raised. The findings of the present study can not be generalized to all families in Indonesia. First of all, more socio-economic status groups can be distinguished that have highly different caregiving environments compared to the present SES groups. For instance, high-income families hire babysitters to take care of their children. Secondly, the families from the present study are of Sundanese ethnicity whereas Indonesia contains about forty different ethnicities. Thirdly, the present sample lives in an urban area. Nonetheless, the majority of Indonesian families have a low to low-middle income families and the Sundanese are the second largest ethnic group. Therefore, it might be tentatively stated that the conclusions hold for urban Sundanese families. The investigation of the immediate environment of children from infancy to school age has revealed some interesting findings but a more detailed exploration regarding the validity of the measurement and consequences for child development are called for.



## Interlude III

### The Immediate Environment: Iwan and Siti at Play

The present interlude is about the quality of the immediate environment of Iwan and Siti. The preceding chapter has shown that the quality of the home and the quality of maternal support are two important components of the immediate environment. Iwan and Siti play a lot. The quality of their immediate environment influences what and how they play. The first vignette is about a boy who lives in Loompoor whereas the second vignette is about a girl from Sheraton. Each vignette starts with a description of their games and the play environment and then describes the kind of support that the mother gives at home. At the end of both vignettes Iwan and Siti's scores for the quality of their home and the quality of maternal support as assessed in this study are presented in a table.



Picture 14  
Playing with sand

### Iwan's Play Environment

Iwan is five years old and lives in Loompoor. His play activities mostly take place outside his home. He has a lot of friends with whom he plays in the kampung and in the rice-fields. His mother allows him to play everywhere in the neighborhood but insists that he is with friends. Her reasoning is that there is always someone who can warn Iwan's mother in case Iwan gets hurt. Although he plays outside most of the time, he regularly walks in and out of the house.

At home, a cupboard in the living room displays some big cars and motorcycles. They belong to Iwan but he is only allowed to play with them at home. They were given to him as birthday presents. Iwan is the only boy in a family with five children. Before his birth, his mother said that she would celebrate the birthday of this child each year in case it was a boy. Otherwise, Iwan's toys and play materials mostly consist of cheap items such as a ball and kite and material like sand, water, and plants. The next excerpt from one of the specimen descriptions shows some of the games that he likes to play outside:

"Iwan returns from the rice fields and goes inside his house to get something to drink. He sees the balloon floating in the room. It is filled with gas. Iwan got the balloon from his mother this morning. He takes the string of the balloon and ties its bottom end to a small ball. He plays with it for a while and then walks outside with the balloon in his hand. He throws the balloon in the air while holding the little ball. He pulls it down and lets it go up again several times. Iwan laughs when the balloon goes up or down in a funny way. When Iwan gets tired of it, he ties the balloon to a twig with the help of the ball. He enters the kitchen and asks for food. His mother gives him a plate with rice, some vegetable soup, and fish. Iwan sits on the floor and eats his food with a spoon. He goes to the table to get something to drink and then sits on the floor again. When he is finished eating and drinking, he stores the plate and glass on the table. He goes to sit in a chair and teases his little sister in a joyful way. A friend, who is about one year older than Iwan, calls him from outside and asks him to come and play. Iwan walks outside. They go and sit on the edge of the veranda where they start playing with sand. While chatting they gather a handful of sand and then throw it away repeatedly. His friend proposes to go to the rice fields and they go. In the sawah, they go and play in a little watch shed. Again, they play with sand but now they take wet sand from the sawah and make piles out of it. They put leaves in the piles. After a while they squat on the dikes of one of the fields and hit the water with a stick. Iwan and his friend make fun while they do this and laugh a lot. They push each other. Iwan stands up. His friend pushes him again teasingly. Iwan runs in the direction of his home while being chased by his friend. They laugh on their way. At his home, Iwan sits on a concrete fence to take a rest of the chase. His friend stands in front of him. Iwan and his friend walk to the road. Beside the road is a canal (parit). They sit on one of its banks and play with the water. His friend spatters Iwan with water. Iwan laughs." (Specimen description 21-8-1991, case 9, 12:00-13:30 hrs.)

Iwan enters his home regularly during the day. At times, this appears to have the function of checking the whereabouts of his mother. His mother would have liked her

youngest child to be a boy too because Iwan would then have had a playmate at home. Now, Iwan often teases his youngest sister and treats her roughly. He likes to pull her hair and hit her. According to his mother, Iwan is jealous of his sister being breastfed. A fragment of a narrative report illustrates this:

"Iwan enters the house with a stick in his hand. His mother is breastfeeding his sister. She is not paying attention to Iwan. Iwan pulls on one of his sister's legs. Iwan's mother looks at this and turns his sister away from Iwan's reach. She tells Iwan that his sister wants to sleep. Iwan pinches his sister in her arm. His sister sits up, gets angry at Iwan, and tries to hit him. Mother tells the observer that these things happen when there is only one boy in the family. They get naughty and will not be nice to their youngest siblings. Iwan leaves the house again." (Narrative report 25-4-1991, case 9, 14:00-14:10 hrs.)

The quality of Iwan's home environment is not very high (for scores see Table III-1 at the end of this interlude). At home, Iwan does not have toys and learning materials and he does not have a high variety of experiences. However, the physical environment in which Iwan lives is safe, clean, and conducive to Iwan's development. Iwan's mother stimulates his language development to a reasonable extent and encourages him academically (i.e., encourages Iwan to learn numbers and colors). His maturity is not much encouraged. Iwan does not receive a lot of pride and affection of his mother but is also not scolded or physically punished (i.e., high on acceptance).

The general quality of support that Iwan's mother provides to him is also below average (Table III-1). This applies to the quality of maternal support in both settings. Noteworthy is an above average score on respect for autonomy that Iwan's mother shows to Iwan in the structured play session.

### Playing with Siti

Siti is also five years old and lives in Sheraton. She goes to kindergarten every day except on Sunday. The kindergarten is open from eight o'clock in the morning until about 10:30 hours, except for Fridays when it is closed at 10 o'clock. The kindergarten is next to her house and it has a play area. When Siti plays outside, she likes to play in the play area of the kindergarten, or at a volleyball field somewhat further the road, or on the road just next to her house. Siti often plays inside the house with girls of her age or her cousins. Most of her playmates are relatives.

At home, Siti's family lives with her grandparents and other relatives in one house. One of the cousins is a niece of her age with whom Siti plays a lot and who joins Siti to kindergarten. Siti also likes to play with a nephew who is two years younger. Their toys are put together in a large box in the living room. They know exactly which toy belongs to whom. Siti has a lot of dolls and little things to play 'house' like a stove, pots, and pans. An excerpt from one of the specimen descriptions illustrates some of Siti's activities. Siti is home with her cousins and aunt. Her mother is at the house of one



of the neighbors and her aunt is in the kitchen most of the time.

"Siti is in the small front room. She walks around and eats some krupuk. Siti walks around while singing and wiggling her buttocks. Then she walks to the aquarium in the living room. She talks to the fish. Siti calls her younger cousin and invites him to watch the fish together. He comes and they look at the fish. After a while, Siti opens the lid and they play with the water in the aquarium. The tricycle of Siti's cousin stands in the room. Siti sits on it and makes noises as if she is starting the engine of a car. Siti goes back to the aquarium and she and the younger cousin play with the water again while standing on a chair. Siti thinks she hears the voice of her mother. She runs to the kitchen, back to the living room and then to the small front room. Her other cousin is in the bedroom where she is dressing herself up with all kinds of cloths. Siti goes in the bedroom too and locks the door behind her. Siti comes out of the room to get a pillow from another bedroom. Siti also dresses up. Siti and her cousin giggle and laugh a lot. Off and on, Siti comes out of the room to get something. Once, she asks her aunt where her mother is. Siti returns to the bedroom carrying her mother's shoes. Siti walks out of the room. Siti has dressed herself in a big piece of cloth (slendang) and holds a bunch of plastic flowers in her hand. In front of the mirror, Siti sings and dances while she looks at herself. Siti is swaying her hips." (Specimen description 1-5-1992, case 82, 12:45-14:00 hrs.)

Siti's family regularly go out together. They like to walk and picknick in the woods. A few times each year, they go to a large commercial play area in the city centre or the zoo. Sometimes, Siti and her father take a walk together and then Siti always returns with flowers. She enjoys picking flowers on the way. Mother tells that Siti and her older brother (Siti's family consists of two parents and two children) are very close to their parents and not as close to their grandparents and other relatives. The reason for this is that, until two years ago, Siti's family lived in a different town than their relatives and Siti's mother took care of the children solely. The naturalness of their close relationship is illustrated by a selection from the narrative report. Together with other family members, Siti and her mother are in the living room where the television is on.

"Siti returns from kindergarten. She gives her mother and the other adults a kiss on the hand and then sits on her mother's lap. Her mother asks her whether Siti enjoyed kindergarten today, what they did for games, and what Siti learned. Siti gives a long story of her experiences to which her mother patiently listens. Now and then, Siti's mother asks Siti to explain something more fully. During this, Siti's mother caresses and hugs her while Siti relaxes on her lap. Siti has a sore lip. She asks her mother for some food but also complains about problems with eating. Siti likes to have a soup with vegetables for lunch. Mother has not had her turn in the kitchen yet but she goes to the kitchen with Siti to look what is available. Siti's mother gives her a full plate and Siti starts eating." (Narrative report 23-4-1992, case 82, 10:00-10:15 hrs.)

The quality of Siti's home environment is good. Siti has a lot of toys and learning materials. Her mother stimulates her language development, her academic abilities, and her maturity to a great extent. Siti also receives pride and affection and is

not scolded or punished physically by her mother. In short, most of the qualitative aspects of the home environment of Siti are above average except for the quality of the physical environment in which Siti lives. Inside the house, there is not a lot of living space per person and the rooms are somewhat overcrowded with furniture. The physical environment outside Siti's house appears not safe and clean: a small road just passes Siti's house that is frequented by many school children and people on small motorcycles on their way to college or work.

Siti's mother provides her with a high quality of support at home and in the structured play session. Siti's mother not only gives adequate emotional support but also supports Siti well during problem solving behavior in the play session. Siti appears to have a play environment that is conducive to her development because both the quality of the home and the quality of her mother's support are relatively high.

Table III-1  
Individual and group scores on the quality of the home and the quality of maternal support

	Scale range	<u>Individual scores</u>		<u>Group scores</u>
		Iwan	Siti	M (SD)
Toys and learning materials	1-11	1	6	3.57 (2.32)
Language stimulation	0-7	4	6	5.14 (1.18)
Physical environment	0-7	6	3	4.32 (1.29)
Pride and affection	0-7	3	5	4.57 (1.32)
Academic stimulation	0-5	4	5	4.19 (0.78)
Encouragement of maturity	0-5	1	3	1.62 (1.34)
Variety of experiences	0-9	3	7	4.78 (1.42)
Acceptance	0-4	4	4	3.51 (0.69)
EC-HOME total <sup>1</sup>	0-55	26	39	31.70 (6.83)
Sensitivity at home <sup>2</sup>	1-9	4	7	5.77 (1.53)
Structured play session <sup>3</sup> :				
Supportive presence	1-7	2	7	3.38 (1.36)
Respect for autonomy	1-7	5	6	4.07 (0.98)
Hostility	1-7	1	1	1.17 (0.74)
Structure and limit setting	1-7	4	6	4.72 (1.24)
Quality of instruction	1-7	3	6	3.64 (1.45)
Total support in play session	5-35	21	32	22.64 (4.23)

<sup>1</sup> Of the EC-HOME sample size is 37. <sup>2</sup> Sample size of sensitivity rating at home is 80. <sup>3</sup> Sample size of structured play session is 76.



## Chapter 7

### Attachment in the Indonesian Caregiving Context

#### Abstract

The interrelations between the quality of the mother-child attachment relationship, the quality of support mothers provide to their children, and characteristics of the caregiving context were investigated in 46 Indonesian mother-child dyads. The distribution of attachment patterns, as assessed with the Strange Situation, showed an over-representation of C children within the insecure group, which has also been found in Japanese samples. The quality of maternal support, measured in two settings, was highest for secure dyads and lowest for insecure-disorganized dyads. Contextual characteristics were not found to differentiate secure from insecure dyads but were indeed found to discriminate between different types of insecure attachment. The distribution of attachment patterns in Indonesia and their relation to a number of the characteristics of the caregiving context are then discussed at length.

The development of a child's attachment relationship is embedded in a social and emotional caregiving climate that is, in its turn, embedded in a broader cultural, social, and economic context. An important characteristic of this caregiving climate is the quality of support that a caregiver provides for a child. In line with evolutionary ecologists and socio-biologists, Bowlby (1988) has assumed that caregivers are to some degree preprogrammed to invest resources in their offspring (e.g., Charlesworth, 1988; Thompson, 1997). Characteristics of the context can either enhance or impair this investment process and thereby the quality of the caregiver's behavior and the development of the attachment relationship as a consequence (Belsky & Isabella, 1988; Thompson, 1997). Cultural differences have been found in the norms with regard to the appropriate way to react to signals from the child and in the values/demands to be imposed on the child (Harwood, 1992; Pomerleau, Malcuit, & Sabatier, 1991), with cross-culturally different distributions of attachment patterns as a result (e.g., Grossmann, Grossmann, Spangler, Suess, & Unzner, 1985). Within cultures, differences in the social and economic context of the family have been found to be related to the quality of support provided by mothers (McLoyd, 1990; Sampson & Laub, 1994) and produce even larger intra-cultural differences in the distribution of attachment patterns (Van IJzendoorn & Kroonenberg, 1988). The aim of the present study is to understand the processes underlying the development of the attachment relationship by examining this development in a non-Western setting. The quality of the mother-child attachment relationship in the Indonesian culture, its relation to the quality of support provided by mothers, and the impact of the Indonesian context on the quality of attachment are thus investigated in the present study.

Attachment research in a non-Western setting is a fruitful way of testing the

universality of attachment theory and the culture-specific aspects of attachment. The discussion about universality was initially centered around the distribution of attachment classifications across cultures and the validity of the Strange Situation as an instrument to assess the quality of attachment. It is now widely acknowledged that --with flexible application of the assessment instrument-- differences in the distribution of attachment characteristics are more related to contextual variation within and across cultures than to the issue of universality. The discussion has moved to such issues as the universality of the relation between the quality of parenting and the quality of attachment, the culture-specific determinants of attachment relationships, and the development of new instruments to assess attachment quality (Van IJzendoorn, 1990; Waters, Vaughn, Posada, & Kondo-Ikemura, 1995). In general, attachment research supports the assumption that the quality of parenting as reflected in sensitive responding to the signals and needs of the child fosters a secure attachment relationship (Thompson, *in press*). Recent research in Japan, another East Asian country, confirmed the existence of a relation between sensitivity and attachment security for 14- and 24-month-olds (Vereijken, Riksen-Walraven, & Kondo-Ikemura, 1997). In Indonesia, economical circumstances surrounding parenting are probably more adverse than in Japan, but even under conditions in which a mother is chronically depressive, for example, the availability and responsiveness of the mother has been found to be related to secure attachment between the child and mother (Radke-Yarrow et al., 1995). Therefore, the quality of the attachment relationship is expected to be similarly related to the quality of maternal support in Indonesian dyads.

A key concept for measuring the quality of parental support is parents' sensitive responsiveness or the ability of parents to perceive, correctly interpret, and respond promptly and appropriately to the child's signals. Sensitive responsiveness manifests itself in a number of different and situation-specific ways across the course of development (Ainsworth, Blehar, Waters & Wall, 1978). In the first year of life, parental responsiveness manifests itself as responding to the attachment behaviors of the child. In later years, parental responsiveness includes other dimensions of parental support. A number of dimensions of parental behavior have been shown to contribute to childrens' socio-emotional development during the pre-school period: adequate emotional support; respect for the child's autonomy; the absence of rejection or hostility; adequate structuring of situations and the setting of firm and consistent limits; and the provision of clear, well-timed, and adequate instructions and information (cf. Erickson, Sroufe & Egeland, 1985; Riksen-Walraven, Meij, Hubbard, & Zevalkink, 1996). When caregivers provide this kind of high quality support to toddlers and preschoolers, a more secure relationship with the child is the result (Riksen-Walraven et al., 1996; Vereijken et al., 1997). Such children have also been found to demonstrate fewer behavioral problems (Erickson et al., 1985).

The influence of contextual characteristics on the quality of attachment can be studied from different angles depending on the definition of context employed. Researchers have often considered only the social aspects of the immediate environment and not paid much attention to the physical aspects. Others have defined context in

terms of social class or parental educational level (e.g., Easterbrooks, Davidson, & Chazan, 1993; Egeland & Farber, 1984; Sampson & Laub, 1994). With these social address measures inferences about the child's environment are made instead of actually measuring it (Wachs, 1991). The present study takes a broad perspective and considers contextual characteristics at three levels: the immediate environment of the child including settings, people, and physical objects that relate to the child in a direct manner; the social and economic characteristics of the family, which can be assumed to affect the child in an indirect manner; and the cultural context reflected by the child-rearing values and child-rearing aspirations of the mother (Sroufe, Cooper, & DeHart, 1996). Very few studies have considered the contextual antecedents of individual differences in the quality of the mother-child attachment relationship. The few studies that have done this, moreover, are exclusively focused on a single source of influence instead of multiple determinants (Belsky, 1990). At the immediate environmental level, for instance, attachment quality has been independently related to nutritional status (Kermoian & Leiderman, 1986; Valenzuela, 1990), parental education (Fish, Stifter, & Belsky, 1993; Hortacsu, 1994), maternal age (Kermoian & Leiderman, 1986), and sleeping arrangements (Sagi et al., 1994). At the level of the social and economic context, the development of attachment has been studied in relation to maternal employment (e.g., Chase-Landsdale & Owen, 1987; Stifter, Coulehan, & Fish, 1993), multiple caretaking (Morelli & Tronick, 1991), and family living arrangements (e.g., Egeland & Farber, 1984; Spieker & Bensley, 1994). At the cultural level, differences in the distribution of attachment classifications have been interpreted in terms of differences in culturally-accepted norms and values with regard to parental responding to children (Grossmann & Grossmann, 1990). The relation between these norms and values, on the one hand, and parental responsiveness to children's attachment behaviors and the quality of the attachment relationship, on the other hand, has yet to be examined empirically, however. It has been shown that caregivers universally value secure attachment behavior (Posada et al., 1995) but differ cross-culturally with regard to insecure attachment behavior (e.g. Harwood, 1992). Once again, however, the relation between these attachment values and actual attachment quality has yet to be considered (Bretherton, 1995; Posada et al., 1995).

This study first compared the distribution of attachment classifications in the present Indonesian sample with attachment distributions in other East Asian samples and the global distribution (Van IJzendoorn & Kroonenberg, 1988). Then, the attachment classifications were related to the quality of support the mothers provide their children and it was investigated whether attachment-group membership might also be related to specific characteristics of the caregiving context.

## Method

### Subjects

The sample consisted of 46 Sundanese-Indonesian mother-child dyads. The

dyads came from families living in the northern outskirts of the city of Bandung. There were 27 dyads from low SES families and 19 from lower-middle SES families. Socio-economic status (SES) was defined by family income, parental occupational status, and educational level of both parents. In low SES families, parents were employed as unskilled or semi-skilled laborers and had primary school as the maximum level of education. In lower-middle SES families, parents had skilled labor or white-collar jobs and high school as the maximum level of education. Most of the families were identified via clinic records at a local Health Registration Centre where the first author volunteered preceding data collection. No family refused to participate.

The children in the 46 dyads were from four age groups: 12 months ( $n=16$ ; nine boys, seven girls), 18 months ( $n=9$ ; four boys, five girls), 24 months ( $n=9$ ; five boys, four girls), and 30 months ( $n=12$ ; seven boys, five girls). Of these 46 children, 19 were firstborn and 27 were later-born. No significant differences were found in the distribution of firstborn and later-born children across the two SES groups or the different age groups.

### Procedure

The mothers and children were visited at home with an average of three visits per family (range 2-5). During the home visits, mother-child interactions were observed during daily routines and these observations were then merged into a narrative report. The mother was also interviewed with regard to the caregiving context and her child-rearing values and aspirations. In addition, local research assistants visited the families an average of three times for three hours to gather specimen descriptions of the caregiver-child interactions across the entire day. After the collection of the data in the participants' homes, the mothers and children were invited to a local facility where mother-child interaction was then videotaped. This setting was not unfamiliar to the mothers and within easy walking distance of their homes. The session consisted of two assessments. The first assessment, lasting an average of 15 minutes, concerned mother-child interaction during a structured play session. The second assessment concerned the observation of mother and child in the "Strange Situation".

### Instruments and Measures

Quality of attachment. Each dyad was videotaped in the Ainsworth and Wittig (1969) "Strange Situation". The videotapes were coded by Dymphna van den Boom, a trained observer, who was blind to all other information on the child and the family. The children were then classified according to the procedure originally developed by Ainsworth and her colleagues as secure (B), insecure-avoidant (A), or insecure-resistant (C) (Ainsworth et al., 1978). Occurrence of insecure-disorganized behavior (D) was rated on a nine-point scale (Main & Solomon, 1990). It is not common to apply the Strange Situation with children older than 24 months, because attachment behavior becomes increasingly difficult to elicit and observe after this age. It was nevertheless decided to apply the Strange Situation here because the children in the present sample were expected to show relatively high levels of separation distress, even at the age of 30



months. This is because Indonesian toddlers --like Japanese toddlers-- are not used to being left alone for even short moments. Adiyanti (1991) also reports 12 to 30 month old Indonesian children to still show a relatively strong physical need for proximity in the Strange Situation. As expected, the separation episodes in the Strange Situation had to be curtailed in a number of cases (as prescribed by Ainsworth et al., 1978) because of the high levels of distress demonstrated by the children. In these cases, the reunion episode was often prolonged.

Quality of maternal support. The quality of maternal support was assessed both at home and in a structured play session. The quality of maternal support at home was rated using the nine-point Sensitivity Scale developed by Ainsworth and colleagues (1974). This assessment was based on the narrative reports of the author and the specimen descriptions made by the field assistants. Four months after the initial ratings, the author rated 14 of the subjects again. The test-retest reliability for the sensitivity ratings at home was found to be .94 (Pearson correlation).

In the structured play session, the quality of maternal support was assessed using five seven-point rating scales developed by Erickson, Sroufe, and Egeland (1985): supportive presence (i.e., expression of positive regard and emotional support for the child), respect for autonomy (i.e., recognition of and respect for the child's individuality, motives, and perspectives), hostility (i.e., expression of anger, discounting or rejection of the child), structure and limit setting (i.e., adequacy of mother's attempts to communicate her expectations with regard to the child's behavior and enforce her agenda adequately), and quality of instruction (i.e., the degree to which instructions are timed to the child's focus, stated clearly, paced at a rate that allows comprehension, and graded in logical steps understandable to the child). The scales were applied independently by a trained graduate student, the author, and one of the supervisors. The interrater reliability was expressed in Pearson correlations and computed for 16 dyads. It was .90 for supportive presence, .86 for respect for autonomy, .79 for hostility, .79 for structure and limit setting, and .89 for quality of instruction. The five seven-point rating scales were found to interrelate significantly in the expected direction, which indicates that they represent different aspects of the same construct (i.e., quality of maternal support) ( $r$ s vary between .23 and .67). A single score for the quality of maternal support in the structured play session was created by summing the five scale scores after reversing the score for hostility. The Pearson correlation between quality of maternal support at home and quality of support in the structured play session was found to be .46.

Contextual variables. Fifty measures characterizing the caregiving context were assigned to one of three contextual levels (immediate environment, social and economic context, or cultural context) and five domains (family structure, education, wealth, health, or residential mobility) based on an extended version of Bronfenbrenner's ecological model. Fifteen factor analyses were then conducted on the measures in the different contexts and domains (3x5) in order to construct more robust contextual variables. Eleven of the 15 analyses yielded a one-factor solution; in the remaining four analyses, a second factor could be derived. The analyses thus produced a total of 19 contextual variables encompassing three different contexts and five domains. In the

immediate environment, the following contextual variables were constructed: Maturity of the family (i.e., number of children and age of parents), Family educational level (i.e., for both parents), Physical wealth (i.e., consumer durables, play materials, living space per person), Health problems (i.e., prevalence of health problems), Nutrition (i.e., nutritional status of the target child and food intake of the family), and Mobility of the family (i.e., number of times moved). In the social and economic context, the following variables were constructed: number of Remarriages for both parents, Extendedness of the family (i.e., living in extended family form), Relatives' educational level (i.e., for grandparents, aunts, and uncles), Economic wealth (i.e., amount of income and the occupational status for both parents), Preventive health activities (i.e., vaccinations, sanitary conditions, and contraceptive usage), Urban origin (i.e., urban vs. rural origin and proximity to mother's place of birth), and Origin of father (i.e., distance to father's place of birth). In the cultural context, the following variables were constructed: Traditionality (i.e., preference for a large family, differential childrearing for boys and girls, and nuclear family form), Educational aspirations for the children (i.e., preschool and high school), preference for Religious education, Child-centered festivities (i.e., investing time and effort in outdoor activities and children's birthdays), Preventive health attitudes (i.e., regular prenatal care and use of a professional midwife), and Mobility aspirations (i.e., striving to move to a more affluent neighborhood) (Zevalkink, Riksen-Walraven, & Van Lieshout, 1995, 1997).

## Results

### Attachment Classification

The ABC distribution of the attachment classifications for the Indonesian children in the four different age groups can be found in the upper half of Table 7-1. The present study examined whether age and gender might be related to the classification of attachment quality using loglinear analyses and found no significant relations. In the lower half of Table 7-1, the ABC distribution for the Indonesian sample is presented along with the distributions for a number of other samples (Van IJzendoorn & Kroonenberg, 1988). Although the number of insecure-avoidant children was found to be small, it was decided to treat this group of children separately in the analyses of the present chapter. In order to determine whether the distribution in the Indonesian sample significantly deviated from the global distribution (All Samples) a loglinear analysis was conducted on a 2 (Samples) by 3 (Classifications) contingency table. This analysis yielded a significant association between sample and attachment classification,  $\chi^2 (5) = 17.14$ ,  $p < .001$ . For the attachment classifications separately (A vs. non-A; B vs. non-B; and C vs. non-C) the results of three 2 x 2 loglinear analyses showed the relation between sample and attachment classification to be significant due to the proportion of children classified as either A,  $\chi^2 (4) = 5.42$ ,  $p < .025$ , and C,  $\chi^2 (4) = 14.70$ ,  $p < .001$ , but not B. Next, I examined whether the ABC distribution for the Indonesian sample deviated from the distributions for the Japanese samples used in the meta-analysis of

Table 7-1

ABC Attachment classifications for Indonesian children aged 12, 18, 24, and 30 months (frequencies) and ABC classifications for Indonesian children (averaged across age) and other children (percentages)

	Frequencies			other <sup>a</sup>	n
	A	B	C		
	Avoidant	Secure	Resistant		
12 months	2	9	5	0	16
18 months	0	4	5	0	9
24 months	0	5	2	2	9
30 months	1	8	3	0	12
All ages	3	26	15	2	46

Samples	Percentages			n	Contrasts
	A	B	C		
Indonesia	6.8	59.1	34.1	44	
All samples <sup>b</sup>	21.0	65.0	14.0	1230	A**, C**
Japan	5.2	67.7	27.1	96	n.s.

<sup>a</sup> One case was U/D7, the other case was A/C. <sup>b</sup> Data from a meta-analysis by Van IJzendoorn and Kroonenberg (1988). \*  $p < .05$ , \*\*  $p < .01$  (two-tailed).

Van IJzendoorn and Kroonenberg (1988). A 2 (Indonesia, Japan) by 3 (Classifications) contingency table did not produce significant results,  $\chi^2(5) = 1.11$ ,  $p = .893$ , which suggests that the distribution of attachment classifications for Indonesia and Japan is comparable.

The children were also observed for D behavior and assigned to a separate D group as prescribed by Main and Solomon (1990). The following ABCD distribution was the result: 3 A (6.5%), 24 B (52.2%), 9 C (19.6%), 1 A/C (2.2%), and 9 D (19.6%). Of the nine D children, two were formerly classified as B, six were formerly classified as C, and one was formerly unclassified. Loglinear analyses were conducted to determine whether age and gender differences might be related to the ABCD attachment classifications. The results of these analyses showed no association between the four attachment classifications and the four age groups. Loglinear analyses for each classification separately, however, showed a tendency towards more C children at the younger age levels,  $\chi^2(3) = 6.99$ ,  $p = .07$ . The association between C classification and age was significant when 12- ( $n = 4$ ) and 18-month-olds ( $n = 4$ ) were contrasted with 24- ( $n = 0$ ) and 30-month-olds ( $n = 1$ ),  $\chi^2(1) = 5.38$ ,  $p = .02$ . Furthermore, separate loglinear analyses showed the association between D classification and gender to be significant,  $\chi^2(1) = 4.03$ ,  $p = .04$ : the D classification occurred at all age levels (12

months:  $\underline{n} = 1$ ; 18 months:  $\underline{n} = 2$ ; 24 months:  $\underline{n} = 3$ ; 30 months:  $\underline{n} = 3$ ), but girls ( $\underline{n} = 7$ ) were more likely to be categorized as D than boys ( $\underline{n} = 2$ ).

The ABCD distribution for this Indonesian sample was compared to the total distribution for non-clinical North-American samples reported by Van IJzendoorn, Goldberg, Kroonenberg and Frenkel (1992). A 2 (Samples) by 4 (Classifications) contingency table yielded a significant association between sample and classification,  $\chi^2(3) = 12.39$ ,  $p = .006$ . Results of four two-way loglinear analyses per classification (A vs. non-A; B vs. non-B; C vs. non-C; D vs. non-D) showed the association between sample and classification to be primarily due to the proportion of A,  $\chi^2(1) = 6.26$ ,  $p = .01$ , and C children,  $\chi^2(1) = 7.38$ ,  $p = .001$ , and not to the proportion of children with a B or D classification. A comparison of the ABCD distributions to the Japanese samples could not be made because D ratings were not available for these samples. In further analyses, the ABCD distributions were used instead of the ABC distributions because the D classification was assumed to provide additional information about the quality of the attachment relationship.

In sum, gender and age differences were only found in the ABCD distribution with more girls classified as insecure-disorganized than boys and more younger children classified as insecure-resistant than older children. A comparison of the distribution of attachment classifications with results of two meta-analyses revealed that more insecure-resistant and less insecure-avoidant classifications were found in this Indonesian sample compared to the global distribution. The Indonesian distribution was comparable with the distribution in Japanese samples.

#### Quality of Attachment Relationship and Quality of Maternal Support

In the upper half of Table 7-2, the means and standard deviations for the measures of the quality of maternal support for the separate ABCD groups are presented. Four separate one-way MANOVAs (A vs. non-A; B vs. non-B; C vs. non-C; D vs. non-D) were conducted with the quality of maternal support at home (sensitivity rating) and the quality of maternal support in the structured play session (summed score) as the two dependent variables. A significant main effect was found for B vs. non-B,  $F(2, 45) = 5.30$ ,  $p < .01$ . Children with a secure attachment relationship were found to have mothers who provided a significantly higher quality of support when compared to the mothers of children with an insecure attachment relationship. Univariate tests for the two settings separately showed securely attached children to have mothers who provide higher quality support in the structured play session than mothers of insecurely attached children,  $F(1, 45) = 10.85$ ,  $p < .01$ , but not at home,  $F(1, 45) = 1.29$ ,  $p = .26$ .

A significant main effect for the quality of maternal support was also found for D vs. non-D,  $F(2, 45) = 3.86$ ,  $p < .05$ . Disorganized attached children were found to have mothers who provide significantly lower quality support than children who were not disorganized in their attachment relationship. Univariate tests showed this effect to hold in to both the structured play session,  $F(1, 45) = 4.92$ ,  $p < .05$ , and at home,  $F(1, 45) = 4.59$ ,  $p < .05$ .

Table 7-2  
Means and standard deviations for measures of the quality of maternal support and contextual variables

	Secure		Insecure		Contrasts
	B	A	C	D	
<sup>a</sup>					
Quality of maternal support					
Home	6.04 (1.23)	5.67 (1.15)	6.22 (1.56)	4.89 (1.96)	D*
Structured play session	23.67 (3.60)	19.67 (2.08)	21.44 (4.56)	19.50 (1.31)	B**, D*
Supportive presence	4.08 (1.02)	3.00 (0.00)	3.56 (1.51)	2.62 (0.74)	B**, D**
Respect for autonomy	4.17 (1.01)	3.67 (1.53)	3.89 (1.54)	3.25 (0.71)	(B, $p = .06$ ; D, $p = .09$ )
Hostility	1.08 (0.28)	1.33 (0.58)	1.33 (0.50)	1.00 (0.00)	C*
Structure and limit setting	4.75 (1.36)	4.33 (1.15)	4.22 (1.09)	3.62 (0.92)	B*, (D, $p = .05$ )
Quality of instruction	3.75 (1.48)	2.00 (0.00)	3.11 (1.54)	3.00 (0.76)	B*, (A, $p = .08$ )
<sup>b</sup>					
Contextual variables					
Immediate environment					
Family education level	0.28 (1.03)	-0.79 (0.25)	-0.64 (0.46)	0.31 (1.07)	C*, (B, $p = .06$ )
Physical wealth	0.35 (0.96)	0.18 (0.55)	-0.79 (0.63)	0.60 (1.06)	C**
Social and economic context					
Extendedness	0.27 (0.89)	-0.50 (0.72)	-0.39 (1.00)	0.64 (1.19)	(C, $p = .06$ )
Economic wealth	0.33 (1.20)	-0.18 (0.44)	-0.49 (0.23)	0.18 (1.10)	(C, $p = .07$ )
Preventive health activities	0.20 (0.99)	0.40 (1.05)	-1.22 (0.47)	0.45 (0.89)	C**
Cultural context					
Traditionality	-0.09 (1.01)	1.33 (0.36)	0.27 (0.56)	-0.03 (0.84)	A*
Educational aspirations	0.00 (0.96)	-0.42 (0.78)	-0.60 (1.16)	0.71 (0.79)	(D, $p = .06$ )
Child-centered festivities	0.10 (1.03)	-0.99 (0.61)	-0.39 (0.65)	0.88 (0.53)	D*, (A, $p = .05$ )
Preventive health attitudes	0.26 (0.85)	0.08 (1.39)	-0.65 (0.59)	0.67 (0.64)	C*
Mobility aspirations	2.33 (0.49)	2.33 (0.58)	2.17 (0.75)	2.80 (0.45)	(D, $p = .05$ )

Note. Contrasts in parentheses have an alpha level between .05 and .10 (two-sided).<sup>a</sup> Ratings are simple means (home 1-9, play session 1-7).<sup>b</sup> Mean factor scores.  
\*  $p < .05$ , \*\*  $p < .01$ .

Main effects for A vs. non-A and C vs. non-C were not significant. This was not very surprising for A vs. non-A because the number of cases was so small. In order to determine whether the loss of subjects from the C group to the D group had influenced these results, a similar MANOVA was conducted with the original C vs. non-C classification (Table 7-1). The same non-significant results were found.

The relation between the attachment classifications and the five different dimensions of maternal support measured in the structured play session was next examined using ANOVAs with the five rating scales as the dependent variables. These analyses revealed significant differences for the B vs. non-B, C vs. non-C, and D vs. non-D classifications. In the B vs. non-B comparison, significant differences were found for supportive presence ( $F(1, 45) = 10.17, p < .01$ ), structure and limit setting ( $F(1, 45) = 4.33, p < .05$ ), and quality of instruction ( $F(1, 45) = 4.51, p < .05$ ) with respect for autonomy nearly reaching significance ( $p = .06$ ). All of the maternal support means for the structured play session were found to be higher in the B group than in the non-B group (see Table 7-2). In the C vs. non-C comparison, a significant difference for hostility ( $F(1, 45) = 4.07, p < .05$ ) was found, showing that insecure resistant children were treated with more hostility than the non-C children. In the D vs. non-D comparison, the mothers of the D children were found to provide less supportive presence ( $F(1, 45) = 7.43, p < .01$ ) and lower quality of structure and limit setting ( $F(1, 45) = 3.99, p < .05$ ) than the mothers of the non-D children. The mothers of the D children also tended to respect the autonomy of their child less than the mothers of the non-D children ( $p = .10$ ). The A vs. non-A comparison showed that A children tend to receive lower quality instructions from their mothers in the structured play session than the non-A children ( $p = .08$ ).

Summarizing, we found secure children to receive higher quality of maternal support and insecure-disorganized children to get lower quality of support from their mothers than the other children. In the structured play session, secure children received more emotional support, more structure and limit setting, and more understandable instructions; insecure-avoidant children received less understandable instructions; insecure-resistant children got more hostile, rejecting responses; and insecure-disorganized children received less emotional support and less structure and limit setting from their mothers than the other children.

### Attachment Quality and Contextual Variables

A hierarchical discriminant function analysis was undertaken in order to investigate possible contextual differences among the four groups of children differing in attachment quality. It can be argued that the quality of maternal support will explain most of the variance in the attachment classifications, so the composite score for quality of maternal support in both settings was entered with the highest priority. All of the contextual variables were next entered with the same priority so that they had to compete with one another in a stepwise fashion (Tabachnik & Fidell, 1989). The original number of 19 contextual variables was reduced to those that discriminate



among the attachment groups. This was done in order to enter only those variables that could contribute to the discrimination and keep the number of predictor variables relatively small in relation to the sample size. All contextual variables with an F-ratio falling short of a 10% level of significance were not considered. This reduced the number of variables from 19 to 10, which is at least three times smaller than the total sample size and therefore acceptable. The means and standard deviations for these 10 contextual variables along with the significant and near significant contrasts between A vs. non-A, B vs. non-B, C vs. non-C, and D vs. non-D classifications are presented in Table 7-2.

In Table 7-3, the first and second of the three possible discriminant functions (number of groups minus 1) can be seen to be significant. From the group centroids depicted in the upper half of Table 7-3, it is evident that the first discriminant function (DF) discriminated insecure-resistant children from insecure-disorganized children in particular. Six of the contextual variables correlated higher with this DF than with the other DFs and two variables contributed significantly: Extendedness and Preventive health activities. This means that in contrast to other children and especially those with a resistant attachment pattern, children with a disorganized pattern more often live in an extended household and have a mother who is more active in preventive health care. Additionally, disorganized children tend to live in a higher educated family, in families that are both physically and economically more wealthy, have a mother with less traditional family structure values, and a mother with higher educational aspirations when compared to resistant children. The second DF discriminated A children from non-A children, with Child-centered festivities contributing significantly to the distinction. Mothers of insecure-avoidant children are less inclined to engage in child-centered festivities and tend to devote less thought to preventive health care when compared to mothers of children with other attachment qualities. Although the third DF did not produce a significant result, it might be inferred from the correlations between the separate variables and the third DF that B children (when compared to non-Bs) tend to receive better quality support from their mothers and have mothers with lower mobility aspirations.

In order to investigate whether the distribution of attachment classifications was related to socioeconomic status (SES), four loglinear analyses were conducted (A vs. non-A; B vs. non-B; C vs. non-C; D vs. non-D). The results revealed only a significant association between the proportion of C children and SES: significantly more insecure-resistant children were found to be in the low SES group than in the lower-middle SES group,  $\chi^2(1) = 7.87$ ,  $p = .005$ . Closer inspection of the proportion of children classified as C in the two SES groups made clear that, in fact, all of the children with a resistant pattern came from low SES families. Low SES families and lower-middle SES families did not differ in the proportion of children classified as A, B, and D.

In sum, contextual variables discriminated significantly between the insecure attachment patterns but did not differentiate secure children from insecure children. The



**Table 7-3**  
**Statistics of multiple discriminant function analysis and correlations**  
**between discriminating variables and canonical discriminant functions**

	Discriminant functions		
	1	2	3
<u>Statistics</u>			
Eigenvalue	1.95	0.61	0.22
Explained variance (%)	70.08	21.95	7.96
Canonical correlation	.81	.62	.43
P-value	.00 **	.03 *	.18
Group centroids			
Group A	-0.05	-2.19	0.02
Group B	0.31	0.25	0.34
Group C	-2.27	0.25	-0.40
Group D	2.14	0.20	-0.85
<u>Discriminating variables</u> <sup>a</sup>			
Quality of maternal support	.05	.28	.58
Contextual variables:			
Immediate environment			
Family education level	.38	.21	-.33
Physical wealth	.34	.06	-.03
Social and economic context			
Extendedness	.56 *	.33	-.37
Economic wealth	.26	.08	-.15
Preventive health activities	.50 *	-.19	.35
Cultural context			
Traditionality	-.20	-.07	.03
Educational aspirations	.17	.14	-.04
Child-centered festivities	.28	.47 *	-.30
Preventive health attitudes	.21	.27	-.10
Mobility aspirations	.20	-.01	-.39 *

<sup>a</sup> The highest within-group correlations between discriminating variables and discriminating functions (DF) are underlined. Significant contributions to the DF are marked with an asterisk.

\*  $p < .05$ , \*\*  $p < .01$ .

global construct of SES only discriminated insecure-resistant children from children with other attachment qualities.

### Conclusions and Discussion

Three main conclusions can be drawn from this study. First, in the present

Indonesian sample the proportion of secure vs. insecure and the proportion of insecure-disorganized attachment vs. other attachment qualities is comparable to the global distributions presented in two meta-analyses (Van IJzendoorn & Kroonenberg, 1988; Van IJzendoorn et al., 1992). The proportion of insecure-avoidant and insecure-resistant attachment classifications, however, deviates significantly from the global distribution but is nevertheless comparable to the distribution in the Japanese samples. Second, the security of the attachment relationship is associated with the provision of higher quality support by the mother. Insecure-disorganized children received significantly lower quality of support than children with other attachment qualities. This finding is in accordance with attachment theory and research findings from European and North American settings, as well as from Japan. Third, the context of the children in the three insecure attachment groups differs significantly. Resistant children were more often found in low SES families whereas SES did not differentiate between families of secure, avoidant or disorganized children. In contrast to resistant children, disorganized children were more often found in extended families and in families more active in preventive health care. Avoidant children lived in families that were less inclined towards child-centered festivities than other families. The next discussion of these findings focuses upon the different qualities of attachment.

As already noted, the proportion of securely attached children in Indonesia does not seem to differ from what has been found for other countries. The B pattern is dominant in most cultures and fortunately also in Indonesia. In line with the findings of other --mostly European and North American-- studies, this study also confirmed the relation between the quality of parenting and the development of a secure parent-child attachment relationship. Another recent study in an East Asian country, namely Japan, has also yielded comparable results (Vereijken et al., 1997). Mothers who provide a higher quality of support are more likely to have children who are securely attached to them. What is interesting in the present study is that this relation was found to hold when the quality of maternal support was assessed during a structured play session outside the home but not when the quality of maternal support was assessed in the natural home setting. The quality of support provided by mothers is apparently more prominent in the standardized play situation designed to elicit various kinds of support behaviors. With regard to the family context, a remarkable finding is that contextual characteristics did not differentiate mother-child dyads with secure attachment relationships from dyads with insecure attachment relationships. Mothers of secure children are probably more able to cope with adverse living conditions and negative life events than the mothers of other children. In a broad range of contexts, that is, these mothers apparently succeed in creating a sufficiently secure atmosphere for the emotional development of their child. For now, it can be concluded that the quality of support Indonesian mothers provide their children is more important for the development of a secure attachment relationship than contextual characteristics.

The distribution of insecure attachment classifications across cultures has been

a hot topic for a long time. Why are there fewer insecure-avoidant children and many more insecure-resistant children in Japan and Indonesia than in European and North American settings? One part of the answer may lay in the disliking by East Asian cultures of child behaviors characteristic of the “avoidant” pattern (see Posada et al., 1995). Indonesian mothers, for instance, have numerous negative expressions for a child who acts as if other people do not matter (Warnaen et al., 1987). Furthermore, maternal behavior that promotes the development of avoidance is greatly disliked in this culture: Indonesian mothers who let their child cry consistently are considered bad mothers. Neighbors or family members will interfere and criticize her behavior (Adimihardja & Utja, 1991). It may thus be postulated that responding to the attachment behaviors of a child (especially crying) is the norm in Indonesia. If a mother is then unable to provide adequate support to her child for whatever reason, the emergence of an inconsistent or incompetent pattern of care associated with an insecure-resistant attachment pattern may be more likely to emerge than a pattern of neglect or rejection, which is generally associated with an insecure-avoidant attachment pattern. Another part of the answer may be found in the ecological circumstances surrounding the parent-child relationship. The fact that most Indonesian children sleep with their mother and/or father in the same bed until they are about four years old (Widjaja, 1989) will make it harder to develop an insecure-avoidant relationship than an insecure-resistant relationship, for instance. Other contextual characteristics might also make it more difficult for an insecure-avoidant attachment pattern to “flourish”. Rohner (1975) found a significant worldwide relation between a mother’s rejection of her child and the household composition. Mothers who are at home alone all day with their children are more likely to reject their child(ren) than mothers who have someone else in the household during the daytime. Although about 65% of the families in the present Indonesian sample were nuclear families, the mothers were rarely alone at home and often socialized outside their homes. Furthermore, 82.5% of the families lived in the same neighborhood as extended family members and frequently visited each other. These social contacts may minimize the chance of developing an insecure-avoidant attachment relationship. In spite of all this, a number of insecure-avoidant attachment relationships were still observed. While the small number of insecure-avoidant children makes it difficult to generalize about the relation between the quality of maternal support and the occurrence of this attachment pattern, the findings were nevertheless highly interpretable in light of attachment theory and the results of other studies. In the present sample, the parents of children with insecure-avoidant attachment differed from the parents of the other children in that they did not invest much time or energy in child-centered festivities such as birthdays and outings.

Why are there more insecure-resistant or C children in Indonesia? As mentioned above, this may partly be explained by general caregiving values. The Indonesian norm of responding to infant crying and other attachment behaviors may increase the likelihood of a pattern of inconsistent sensitive care rather than a pattern of consistent rejection. Once a child has developed an insecure-resistant pattern of

attachment characterized by extreme dependence on the attachment figure, moreover, the caregiver is given little chance to neglect or be unresponsive to the child. The possible existence of a norm to respond to attachment behaviors might also explain the finding that the quality of maternal support for insecure-resistant children is rather high at home, showing a picture of a very involved mother. Observed in the natural home setting, the care of these mothers might have looked involved because the conditions of the mother-child interaction under which the observations took place were not too difficult to handle for an otherwise more inconsistent or incompetent mother. Under more stressful conditions the mother's competence and consistency may deteriorate. The structured play session may then be particularly stressful for the mothers of insecure-resistant children. In this situation, children are stimulated and expected to explore in a more or less autonomous manner whereas C children will be particularly frightened in this novel situation and cling to their mothers (Main, 1990). A struggle between the mother's perceived goal of making the child explore and the child's goal of seeking contact and security may emerge, as was illustrated by the finding that mothers of insecure-resistant children were more irritated by the behavior of the child and acted more hostile towards the child in this situation than other mothers. It seems that the consistency and competence of a mother of an insecure-resistant child is much more challenged in the structured play session than during the observations at home. The question then remains whether the mothers of insecure-resistant children more often live in stressful circumstances or circumstances that may easily be interpreted as stressful. The present study indeed found insecure-resistant children to more often live in low SES families characterized by a lower level of physical and economic wealth and a lower level of education. These children also lived less often in extended family households than the children with other attachment qualities. The more impoverished living conditions may directly create stress for both the child and the caregiver because it is, for example, more dangerous to put the children on the ground to play or the children are forced to whine more often for food. But an important additional factor is how the mothers perceive these conditions. It has been postulated that mothers who perceive these conditions with negative affect are more inclined to behave in ways that foster the development of an insecure mother-child attachment relationship (Spieker & Booth, 1988). Put differently: these mothers allow the characteristics of the context to take control of the situation instead of taking control of the situation themselves. This attitude is partly reflected by the finding that the mothers of the C-children were least active with regard to preventive health care. Indonesian mothers of insecure-resistant children may sometimes provide adequate care and sometimes be overwhelmed by the situation and not be able to organize it for the child. It has been postulated that the clinging C-type behavior of an insecure-resistant child gives the caregiver the opportunity to behave and feel competent under certain conditions at the expense of the child's development (Cassidy & Berlin, 1994). Further investigation of a mother's perception of the family situation and a mother's feelings of competence with regard to child-rearing and attachment is certainly warranted.

The proportion of insecure-disorganized or D children in Indonesia was found to be comparable to the proportion of D children in other non-clinical samples (Van IJzendoorn et al., 1992). In line with the findings of other researchers, the present study found the mothers of insecure-disorganized children to provide significantly lower quality support than the mothers of children with other attachment qualities (see also DeMulder & Radke-Yarrow, 1991; Lyons-Ruth, 1996; Lyons-Ruth et al., 1991). This finding holds for both settings. Furthermore, the insecure-disorganized pattern of attachment appeared to be related to contextual characteristics and caregiving values in particular (characteristics that were defined as belonging to the cultural context). Compared to parents of children with other attachment qualities, the parents of the D children invested more in child-centered festivities, had higher mobility aspirations, and tended to have higher educational aspirations for their children. Recall the differences in the attachment patterns revealed by the discriminant analysis of the contextual variables. The first function extracted in this analysis discriminated between the D and the C groups in particular. Two of the best discriminating variables were: living in extended families and mothers being more active in preventive health care (both positively associated with the D-pattern). What is the explanation for more D children living in extended families than C children? Depending on the circumstances, extendedness can have a positive as well as a negative impact on the quality of the child's attachment relationship with the mother. Living in an extended family implies much more opportunity to develop multiple attachment relationships. Even in households with substantial multiple caretaking, such as the Efe in Zaire, mothers nevertheless appear to be primarily responsible for the care of their young children and the children concomitantly appear to develop primary attachments with them (Morelli & Tronick, 1991). In Kenya, Kermorian and Leiderman (1986) found greater household density to be significantly related to secure attachment to the mother. It can be postulated that in these generally burdensome households, the chores are divided across a greater number of people and the mother thereby given more time for her child. But more often the support of extended family members has not been found to be a protective factor for young children in forming a secure attachment relationship with their mother (Spieker & Bensley, 1994). For instance, Pakistani mothers in extended families have been found to be at a greater risk for both depression and anxiety (Shah & Sonuga-Barke, 1995). Such a process might also explain the relation between family extendedness and the occurrence of D attachment in Indonesia. Furthermore, in contrast to the C pattern, D was found to be positively related to the preventive health activities of the mothers. In this regard, the question arises as to whether these activities are the expression of overanxiousness or simply the precautionary measures characteristic of more wealthy and higher educated families. In this light, it is especially intriguing to note that the behavior of six out of eight of the D children was classified as C when disorganized/ disoriented behavior was not taken into account. This indicates that the basic pattern of D children's attachment behavior resembles the resistant pattern. In contrast to what appears to be the case for the mothers of C children, however, the lack

of adequate support provided by the mothers of D children does not appear to be rooted in the stress of poverty and poor living circumstances. The remarkable contrast between the high aspirations and child-centered values of the mothers of D children, on the one hand, and the low quality of their actual support for their child, on the other hand, may indicate that particular characteristics of the mother's personality or life history play a role in the emergence of such disorganized behavior. Earlier research into the antecedents of disorganized attachment has focused on maternal characteristics such as depression (Lyons-Ruth et al., 1991; Spieker & Booth, 1988) or unresolved trauma (Main & Hesse, 1990; Van IJzendoorn, 1995). On the basis of this research, it has been postulated that frightened or frightening behavior on the part of the mother may relate to the development of an insecure-disorganized attachment relationship (Main & Hesse, 1990). Unfortunately, these maternal behaviors or characteristics were not included in the present study. A final interesting finding in this light is the high number of girls classified as disorganized. If the development of a disorganized attachment relationship is related to maternal characteristics such as depression and anxiety, it might be inferred that Indonesian girls are more vulnerable to these maternal characteristics and the expression thereof in mother-child interaction than Indonesian boys. Further research is needed on this topic before definite conclusions can be drawn, however.

With regard to the validity of the instruments used in the present research it can be asked whether Indonesian children aged 24 and 30 months still display the attachment behaviors that allow the valid assessment of the quality of the attachment relationship in the Strange Situation. In accordance with the findings of Adiyanti (1991), Indonesian children at these ages were still found to be very much physically focused on their mothers. That is, the Strange Situation still aroused separation distress and did not yield more secure classifications than for the younger age groups. These findings are taken to support the validity of the use of the Strange Situation procedure with both the younger and the older age groups in the present Indonesian sample. The ABCD classification but not the ABC classification surprisingly yielded an age effect in the distribution of attachment qualities: many 24- and 30-month-old children, who were classified as C in the ABC distribution, moved to the D group when the ABCD classification was applied. Developmentally, these results are relevant because the social and emotional development of D children seems to be at a greater risk than that of A and C children (Spieker & Booth, 1988). The development and manifestation of insecure-resistant and insecure-disorganized attachment behavior may be an interesting question for future longitudinal research. With regard to the validity of the structured play session, the quality of maternal support in the play session was found to sufficiently correlate (.46) with maternal sensitivity at home. Furthermore, the quality of support provided by the mothers --in particularly during the play sessions-- was meaningfully correlated with the attachment quality of the children and a number of characteristics of the caregiving context. These findings thus support both the construct and ecological validity of the maternal support measures derived from the structured play session.



Finally, the issues of universality and generalizability should be raised. Investigation of the universality of attachment theory is a multi-faceted process. The basic propositions of attachment theory are generally confirmed by the findings of the present study. The relation between the specific contextual variables and the development of attachment relationships has proven to be an interesting line of investigation with both theoretical and practical implications if only for the finding that the development of insecure attachment relationships appears to be rather context-sensitive. Whether these results can be generalized to other developing countries seems to be a matter for further research.



## Interlude IV

### Attachment security: A secure base for Epah, Sutisna, Elisa, and Dedi?

Attachment security of the child is the focus of the last interlude. The relation of attachment security with the quality of support that each of the mothers provides at home and in the structured play session is illustrated by a description of the daily mother-child routines in four cases. By presenting case material, attachment security, as assessed by the Strange Situation procedure, is highlighted in the behavior of mothers and children at home. This time, the interlude contains four vignettes. The first two children come from Loompoor and are both 12 months old. The last two children live in Sheraton and are 18 months old.



Picture 15  
Attachment in its social context

#### Attachment Security for Epah?

Epah is 12 months old and an only child. Her mother is 20 years old and her father is 25 years of age. They live in Loompoor in a three-by-five metres room that

belongs to the mother of Epah's father. The room is part of a larger house with two other rooms being occupied by two of the seven siblings of Epah's father. The other siblings and the mother of Epah's father live in the near vicinity of Epah. At first, Epah's family occupied two rooms but after a 19 year old sibling of Epah's father wanted to live in his own room they moved to the largest room with all their belongings. The room consists of a large bed, a cupboard, and two chairs.

Epah's mother comes from a village outside Bandung. She was adopted by neighbors after her parents divorced. The adoptive parents let her finish primary education. After primary school, Epah's mother worked as a house servant. After a year of service in Bandung she met Epah's father and married him. The father of Epah was born in Loompoor. He has finished lower secondary education (SMP) and is presently working as a desk clerk in government service. His income is still very small. For additional earnings, he sometimes works as a night watchman for a rich family in the neighborhood.

The mother of Epah is very much focused on taking care of Epah and her household. She enjoys having a baby to take care of. Since Epah's father is gone for most of the day and sometimes most of the night, she considers Epah to be a welcome companion to talk to at home. A fragment from one of the narrative reports shows her eagerness to play her role as mother. Epah is two weeks old at the time of the report.

"Epah's mother sits in a chair and is breastfeeding Epah. Epah's mother tells the researcher that she finds it exciting to have become a mother. She is continuously thinking about the baby and does not feel the need to go out of the house. Epah's mother tells that she does the laundry in front of the house with water from a well instead of in the canal like other housewives. In this way, she does not have to leave Epah with someone else. She tries to do the laundry when Epah is asleep. She can also leave Epah on bed while doing other household chores such as cooking. She says that Epah likes to look around when she is laying on the bed and that Epah also gets more physical exercise on bed instead of in someone's arms." (Narrative report 21-5-1991, case 39, 9:45-9:55 hrs.)

A few months later, Epah's mother is still strongly involved in taking care of Epah. During the day, Epah's mother is primarily busy with Epah and her household chores and only occasionally goes to visit others. She still rarely leaves Epah in another person's care and when she does it is only for short periods. A short excerpt from a specimen description illustrates the daily routine of Epah and her mother. Epah is almost five months old. Epah and her mother are alone at home.

"Epah wakes up from her sleep. Her mother takes her in her arms and carries her to a chair. Epah sits on her mother's lap with her eyes facing her mother. Her mothers acts playfully with Epah and teases her now and then. Epah objects loudly to her mother tickling her. Epah starts crying and is then being breastfed. After about ten minutes, Epah stops drinking. Her mother puts her on the bed because she wants to heat some water. Epah looks around. The water is put into a small container that Epah's mother carries to the bed. Epah's mother undresses Epah and starts to wipe Epah clean with a

towel that she has soaked with water. During this procedure, Epah cries and screams. After the cleaning, Epah gets talcum powder and minyak kayu putih (i.e., warming up oil) on her whole body. Then Epah is dressed again and her hair is combed. Epah is still somewhat sulky. Her mother carries her to the chair and starts breastfeeding Epah. Breastfeeding takes about thirty minutes. After Epah stops drinking, her mother puts Epah on the bed again because her mother wants to arrange her own cloths. When her mother looks neat again, she takes Epah and carries her in a slendang. Epah's mother takes a banana and spoon. She spoons the banana to Epah. Epah eats without much interest. While feeding Epah, her mother sometimes stands up and sometimes sits down. After the banana is finished, they sit in the chair. Epah's mother starts to engage Epah in play by teasing her a bit. Then Epah is being carried outside to her grandmother's place. Epah's mother seats herself with Epah on a bench on the veranda near Epah's grandmother. Her mother and grandmother pay attention to Epah and tickle her. Epah smiles. After a short while, Epah starts whining. Her mother starts breastfeeding Epah. After ten minutes, Epah falls asleep." (Specimen description 31-8-1991, case 39, 15:45-17:50 hrs.)

Observations throughout the first year of Epah's life show that her mother is very fond of Epah. She has been observed to praise Epah for accomplishments such as trying to grab something and she shows her affection for Epah by regularly hugging and kissing Epah. At times, however, she seems to miss the finer attuning towards Epah's signals. Her relative inexperience and preoccupation with her own new status of wife and mother sometimes appear to stand in the way of behaving sensitive towards all of the needs and signals of Epah. With regard to stimulating Epah's development, she has two typical attitudes. One is rather passive in which she thinks that Epah will teach herself after having given items to play with. The other is rather interfering: when Epah tries something that is not going smoothly, she will take the thing and show its working to Epah by doing it herself.

At home, Epah's mother has been given a rating of five on the nine-point sensitivity scale which is somewhat below average (see for average scores Table III-1). This means that she may have been prompt and appropriate in response to Epah's communications at some times, but faltered in this at other times. In the structured play session, she provided very little emotional support (rating=2), mostly denied Epah's autonomy (rating=2), gave instructions that were uniformly of poor quality (rating=1), but established reasonable structure for the child during much of the session (rating=4).

During the first year of her life, Epah has been observed to either easily show disagreement with her mother's actions at home or to behave rather passive. When strangers enter the house, she is often shy with them for quite some time. For some months, Epah even strongly objected to her mother leaving her alone with her father for short moments. During the Strange Situation procedure, Epah showed strong proximity seeking and contact maintaining in the reunion episodes and was not easily consoled. She showed angry, resistant behavior towards both the mother and the stranger and was extremely distressed during the separation episodes. Her attachment classification was of the insecure-resistant type (C1). No insecure-disorganized behavior was observed (rating=0).

### The Quality of the Relationship between Sutisna and his Mother

Sutisna is 12 months old and lives in Loompoor. He has two older siblings. His sister is ten years of age and his brother is 8 years of age. Sutisna's mother is 29 years old and his father 30 years. They live with the grandmother of Sutisna's mother in her house. It is a solid house with three rooms and a kitchen in the back. Relatives of both parents live in walking distance of the house of Sutisna's family. The grandmother of Sutisna's mother has raised Sutisna's mother because her mother died when Sutisna's mother was three years old. Her father remarried after the death of his wife and moved to another city without taking the children with him.

Both parents of Sutisna have finished primary school. At the first visit by the researcher (Sutisna was three months old), Sutisna's father still worked as a construction laborer. The front room was full with new furniture. When Sutisna was between four and five months of age, his father was often unemployed for long periods and the furniture had to be sold. After this period, he found a new job as a driver for a salesman with the help of one of his siblings. In between, he has been busy with a fishery and selling fishes for consumption. According to Sutisna's mother, the fish business is more for fun than a serious enterprise with a good profit.

Both siblings of Sutisna had convulsions when they were young. Sutisna's mother says that Sutisna's brother has had so many convulsions until he was stupid. His brother only understands simple commands and his speech is not very fluent. Sutisna has been seriously ill at the age of 8 months. He has had MUNTABER which means that he was vomiting and having diarrhea at the same time. He went to the hospital for six days and used ten bottles of infusion. This happened just a few days after his great-grandmother had died. Sutisna's mother had been very upset. The preparations and ceremonies for the funeral took place in their house. During this, Sutisna had probably caught the disease.

Caregivers of Sutisna are his mother, father, sister, and a female relative who lives next door. His mother takes care of him most of the time. When she has to do something like the laundry or preparing dinner, his sister or the female relative take care of him. Sutisna is very fond of his father and always enjoys his father coming home. Sutisna stretches his hands towards him and wants to be carried by his father the moment that he comes home. When his father is home in the daytime, he likes to play around with Sutisna by taking him for walks outside and showing him things on the way. His brother helps his mother but he is not able to take care of Sutisna.

Sutisna's mother is an attentive observer of Sutisna's activities. She likes to notice what Sutisna enjoys to do and to play with. The next excerpt illustrates some of her observations. His mother and brother are sitting on the couch. Sutisna is ten months old.

"Sutisna sits in a chair with little wheels under it. He rolls through the room at a

running speed. While running he hops up and down. His mother tells that he likes active games and has a lot of energy. He is not easily afraid to try again. Sutisna has already hurt himself badly three times by turning over with his chair but he still enjoys it. She finds that Sutisna is usually very cheerful and keen in exploring objects. For this reason, he learned to crawl very soon because Sutisna's mother would put something slightly out of reach for Sutisna and he would then be strongly motivated to go to the object. Sutisna, furthermore, enjoys looking at cats, chicken and other little animals. He likes to watch them through the window or during a walk outside. According to Sutisna's mother, Sutisna is not afraid of other people. They are allowed to carry him even when he does not know them well. Sutisna has arrived at his mother's legs. He signals to get out. His mother takes him off the chair and puts him on the couch. His brother takes Sutisna on his lap but does it in a clumsy way. Sutisna cries. His mother takes him up. He stops crying immediately. She puts Sutisna on his brother's lap in a gentle manner. Sutisna sits quietly on his brother's lap and looks outside (Narrative report 7-8-1991, case 18, 10:30-11:00 hrs.)

Sutisna mostly plays at home. Outside the house, he is usually carried. His mother does not allow him to crawl around outside because it is too dirty. Sutisna's mother likes to give Sutisna plenty of opportunity to explore his home environment, as shown in the next excerpt from one of narrative reports:

"Sutisna crawls to the front room and looks outside through the open door. He returns to the living room and crawls towards his mother. He signals his mother to pick him up. His mother picks him up and puts him on his feet on the couch next to her while holding his hands. Sutisna leans against the back of the chair and looks outside the window. His mother holds him at his body in case he might fall. Sutisna knocks on the window glass. He sits down on his mother's lap. Sutisna wants to go off the couch and then climbs up again. He stands on the couch while his mother holds his hands. Then, Sutisna plays the game of going down and up the couch with the help of his mother. When he sees something moving outside, Sutisna leans against the back of the couch and looks at the chicken. He lies down on his mother's lap with his face downward and tries to grab a small vase with plastic flowers from the table in the corner of the room. He holds the vase. His mother puts him on the floor. He starts to crawl in all directions. He returns to the table and pulls the table-cloth. Sutisna looks at his mother and makes fun with her by playing peekaboo with the table-cloth. He laughs loudly when his mother makes funny sounds each time he shows his face again. After a while, he crawls to the cupboard. He succeeds in opening a door of the cupboard and gets a piece of paper. Sutisna tears it to shreds and plays with the paper. Then, he crawls to the table while behaving fussy. He approaches his mother who picks him up. She changes his trousers because they are wet. Sutisna cries while she is doing this. His mother starts breastfeeding Sutisna. He lies on her lap in a very relaxed manner. After about five minutes, he starts to play again." (Specimen description 22-8-1991, case 18, 13:25-14:10 hrs.)

At home, Sutisna's mother has been rated above average on sensitivity (rating=8). She has proven to be able to interpret Sutisna's communications accurately and to respond to them promptly and appropriately. Her behavior was sometimes too

passive to speak of optimally responding towards Sutisna. This passivity in her behavior at home was reflected in her behavior during the structured play session. There, Sutisna's mother was found to show very little emotional support (rating=2), but an average amount of respect for Sutisna's autonomy (rating=4). She established reasonable structure for Sutisna during much of the session but was inconsistent in her structuring behavior across tasks (rating=4). Some portions of the tasks were effectively structured but the quality of her assistance was inadequate for much of the session (rating=3).

Sutisna was eager to explore his environment. Also in the experimental sessions, he showed eagerness towards investigating the novel objects. Both at home and during the Strange Situation procedure, Sutisna did not like it when his mother left the room. He cried during the last separation, but was easily consoled by his mother. His behavior during the Strange Situation showed that Sutisna was securely attachment (B2) towards his mother and was able to use her as a secure base during explorations.

### Elisa's Attachment

Elisa is 18 months old and lives in Sheraton. She is the first and only child after eight years of marriage. Her mother is 31 years old and her father is 47 years of age. Elisa's mother has finished six years of secondary education (SMA). Her father has finished University. Before being pregnant of Elisa, Elisa's mother worked in the catering business. She has quit working since her pregnancy. Her husband does not allow her to work as long as Elisa does not attend school. Elisa's father lives in Jakarta where he has two jobs. He works in a company in the mornings and works as a salesman in the afternoons. He also has two wives. Elisa's mother is the second wife. In the weekends, he likes to go to Elisa and her mother in Bandung. When he is not able to come to Bandung, he sends his son of his first marriage to bring money.

Elisa lives in a two-storey house that is relatively new. It has two rooms and a kitchen on the first floor and two bedrooms on the second floor that are occupied by relatives. The house is well-furnished. In the living room is a color television. In the first years of marriage, Elisa's mother lived closer to her husband. She moved to her place of birth, Sheraton, again because he was away for long periods and she did not have any relatives in the vicinity. In Sheraton, Elisa's grandmother and most of the siblings of Elisa's mother live near Elisa's house.

Most of Elisa's playmates are nieces and nephews. The youngest is about three years old. Relatives regularly visit Elisa's house. The next selection from one of the specimen descriptions illustrates this coming and going in Elisa's daily life. At the time of the observation, Elisa is 17 months old.

"Elisa sits on the floor just outside the front door. A five-year old niece passes by. The niece carries a plastic bag. Elisa stands up and takes the bag. Elisa sits down again. She calls her niece who stands in the doorway watching television. Her niece seats herself beside Elisa. Elisa stands up again and hangs the bag over her shoulder. She walks



inside the house, stands in front of the television, and then walks around with the bag on her shoulder. Her grandmother sits on the couch and her niece has walked inside too. Elisa approaches her grandmother. Then, Elisa walks to the kitchen where her mother is with an aunt of Elisa. They are busy cooking. Elisa goes to the bathroom and asks her mother to lift her up. Elisa's mother lifts her up and Elisa looks at herself in the mirror. Her mother puts Elisa on the floor again. Elisa has taken a comb and plays with it. She walks to the living room and stands in front of the television. Elisa puts the bag on the floor and walks outside the living room towards her tricycle. Her aunt picks Elisa up and puts Elisa on the stairs. Her mother gives Elisa a snack. A three-year-old stands in the gate. Elisa babbles with her. Her aunt helps Elisa down the stairs. Elisa goes to sit near the gate. Her mother feeds Elisa yellow rice with a fried egg. Meanwhile, Elisa sits on the floor and plays with the sandals of her grandmother." (Specimen description 28-3-1992, case 67, 9:15-9:40 hrs.)

Elisa is usually very shy when they go to gatherings like the POSYANDU. At first, Elisa's mother was a volunteer for almost a year. Because Elisa was very fussy and did not feel comfortable there, she stopped her activities. Now, they rarely go to visit these kind of meetings. Elisa likes to go to the shops downtown. Promising Elisa to take her to the shops is a well-tried means to persuade Elisa in doing something she otherwise would have rejected. As a family, they rarely go out together. Usually, Elisa's father is too tired to go somewhere else. Elisa has been given a lot of toys and Elisa's mother tries to teach her all kinds of things like counting and singing.

Elisa has a close relationship with her parents. Her father is very fond of her. According to Elisa's mother, when he arrives at their place, Elisa's father always goes to see Elisa first regardless of him being tired or not. When Elisa is sleeping, he lays down beside her to hug her for a moment. When her father is leaving again, Elisa always cries. Elisa and her mother are very much focused on each other. Elisa's mother usually joins Elisa everywhere she goes and is anxious to leave Elisa in the care of others. When family members take Elisa for a walk, they are not allowed to take her further than the path just around the house. Elisa's mother often invites children inside the house to play with Elisa while she is doing household chores. In case that her mother has to go out alone, Elisa becomes extremely upset when she sees her mother leave. The next excerpt related to the process of weaning illustrates this entangled aspect of their relationship.

"Elisa's mother discloses that she does not want to have another child because breastfeeding has been so painful that she does not want to go through that agony again. Elisa is still being breastfed at the age of 18 months although less and less regularly. Each time it still hurts. Elisa's mother does not want to wean Elisa from breastfeeding by putting something untasteful on her breasts like many other mothers do. A few months ago, the breasts were very painful and infected. In that period, Elisa's mother tried to wean Elisa by going to work. Elisa reacted by becoming extremely upset and refusing to eat. She got skinny and lost her happiness (*gairah*). After a week, Elisa's mother stopped working and continued to be a full-time caregiver. Elisa's mother tells that she is probably much more worried about Elisa because she is an only child. She says that having a child means 100% attention towards the child. In the meantime, Elisa comes and sits on her mother's lap. She starts fussing and pulls on her mother's blouse.



Her mother says to her that it is not appropriate to give the breast in company of guests but gives in to Elisa's request. Elisa falls asleep in about a minute and is fast asleep after ten minutes. Her mother puts her in bed." (Narrative report 25-1-1992, case 67, 10:45-11:10 hrs.)

At home, Elisa's mother appeared to interpret Elisa's signals and communications accurately and responds to them in a sensitive manner. However, her perception of Elisa's signals was not always consistently prompt or appropriate (rating=7). During the structured play session, she gave some emotional support but it was sporadic and poorly timed to Elisa's needs (rating=3). Elisa's mother was found to be moderately intrusive in her respect for Elisa's autonomy (rating=4). With regard to the setting of structure and limits, she established basic limits for the child and tried to get the child to do the tasks, but she was not very consistent (rating=3). Although Elisa's mother provided good hints during some portions of the tasks, the quality of instruction was low for much of the session (rating=3).

Elisa is easily upset by a change of situation. She often cries when she wakes up from her nap. It took quite a long time before she got used to the researcher. Furthermore, she has always shown a strong fear for cameras and did not want her picture taken regardless with or without her mother. During the Strange Situation procedure, she gave the impression of being anxious throughout and cried a lot. She showed resistant behavior towards her mother but was also confused and refrained from contact. The quality of her attachment relationship was assessed as secure (B4) with a rating of five on the nine-point disorganized/disoriented scale. Ratings of five and higher on this scale result in Elisa having a disorganized/disoriented attachment classification.

#### Dedi and his Attachment to his Mother

Dedi is 18 months old and lives in Sheraton. He has an older brother who is six years old and attends primary school. His mother is 28 years old and his father is 34 years of age. They live in a large house that contains five rooms and belongs to the parents of Dedi's mother. Dedi's family lives together with his grandparents and two younger siblings of his mother. The youngest sibling of Dedi's mother is four years old and the other is 22 years of age. Dedi's parents have bought a piece of land and are building a house at about 200 metres from the present house. Relatives of Dedi's father live in another town.

The father of Dedi has finished the Technical High School and works at a water company. Dedi's mother has finished the Teachers High School and works as a full-time teacher from 7:30 till about 12:00 o'clock in the morning. Dedi's grandmother used to work as a teacher but now takes care of both her youngest child and Dedi when Dedi's mother is working. His grandmother thinks that it is not good for the children to let a pembantu (house servant) take care of them. The strong involvement of Dedi's grandmother in the upbringing of Dedi is illustrated by the next excerpt from one of the

specimen descriptions. Dedi is 17 months old at the time of the observation. Dedi's grandmother and older brother are in the room.

"Dedi sits on the table and is playing with a car. He pushes the car around and is making engine sounds. Dedi climbs off the table and takes the doll that he had thrown on the floor ten minutes earlier. He throws the doll away, picks it up and throws it again. Dedi climbs up and off the table. His brother gives him a plastic battery-powered gun and turns on the sound. Dedi holds it in his hands and waves with it. He turns the sound off and on several times. His grandmother has taken a train from the cupboard. She asks him what kind of vehicle it is. Dedi answers her question. Dedi starts to sing. He sits on the floor with the train and pushes it. He takes the doll again and a bottle of talcum powder. Dedi throws away the bottle and runs around. He asks his grandmother for a snack. His grandmother does not give him a snack but allows him to look in her wallet. He plays with the wallet and finds a photo inside it. He points at the photo and names it. Dedi runs out of the house and is chased by his grandmother. She brings him inside the house where Dedi starts playing with the wallet again. This time, he takes the photo out of the wallet. Dedi calls his grandmother and they go and sit together to watch a photo album. Dedi points at the photo's. His grandmother asks him who the people on the pictures are and tells him when he does not know the answer. Dedi sings and his grandmother joins him. They sing and look in the album for about ten minutes." (Specimen description 27-5-1992, case 92, 9:20-9:50 hrs.)

Dedi and his mother are also very close. Dedi's mother gives Dedi a lot of attention when she is at home. She intends to breastfeed Dedi until he is two years old because he still likes it. The mother of Dedi stimulates Dedi's cognitive development strongly. She often engages Dedi in educational play and likes to explain a lot. He already knows a lot of words and he can sing three songs by heart. His mother and grandmother are very proud of that. Dedi's mother asks Dedi all kinds of questions as shown in the next excerpt from one of the narrative reports.

"Dedi is at home with his mother. He draws on the floor with a coloring pencil. There are some sheets of paper next to him. Dedi's mother tells him to stop and explains that he has paper on which he can draw. She give a long explanation with a lot of questions. For instance: 'When you draw on the floor, who will get angry?' and 'What do you get when you draw on the floor?' and 'Does Dedi want to get punished?'. Dedi answers in an absent-minded way and does not seem to bother much. Dedi continues for a short while. His mother has picked up a plastic tiger and tells the observer that he likes to play with this. Dedi takes the tiger out of her hands. He squeezes the tiger. His mother says to him that the tiger is crying now and likes to get a hug of Dedi. Dedi says that the tiger wants to drink and throws it in his mother's blouse. After his mother has pretended to breastfeed the tiger, Dedi pretends that he suckles the tiger too." (Narrative report 15-5-1992, case 92, 13:00-13:30 hrs.)

At home, Dedi's mother has been rated as sensitive (rating=7) on Ainsworth's nine-point sensitivity scale. She often interpreted the signals and communications of Dedi accurately and responded promptly and appropriately to them, but also tended to

overinterpret signals and to provide too much stimulation to give her a higher rating. In the structured play session, Dedi's mother did a respectable job of being emotionally available when Dedi needed her support (rating=4), but she also intruded strongly on his behavior at times resulting in a moderately low respect for Dedi's autonomy (rating=3). During the tasks, Dedi's mother seemed effectively to be in control and continued to structure the situation (rating=6). Her instructions demonstrated most of the desirable features. Dedi's mother appeared to provide a high quality of instruction throughout the session (rating=6).

Dedi was not afraid of the observers at home. He usually continued playing when they entered and sometimes asked them to join when he needed a playmate. His behavior during the Strange Situation procedure was classified as securely attached (B2). Dedi appeared to use his mother as a secure base. He was very clear in his need for proximity with his mother when the situation distressed him.

## Chapter 8

### Conclusions and Discussion

This study has offered an inside view on the way Indonesian parents and their young children relate to each other. More specifically, this study focused on the interplay between the Indonesian caregiving context, the quality of parenting, and the security of the attachment relationship between mother and child. Three major steps represented the empirical analysis. First, the caregiving context was structured with the aid of an adapted version of Bronfenbrenner's ecological model. Second, the caregiving context was related to the quality of parenting that mothers provide to their children in two different settings: at home and during a structured play session in a setting outside the home. Third, the mother-child attachment relationship was related to the quality of parenting and characteristics of the caregiving context. The study included an intracultural comparison and used both anthropological and psychological concepts and research methods. The present chapter aims to summarize the main findings, to draw some general conclusions, and to discuss the present research.

Four sections divide the present chapter. The first section is reserved for the main empirical findings. The second section discusses the concepts of culture and adaptation, introduced in the introductory chapter, and relates them to the present findings. The third section of this chapter discusses the reliability and validity of the methods used in the present research. In the fourth section, the research findings will be put in the broader context of other anthropological and developmental research.

#### Main Empirical Findings and Conclusions

The presentation of the main findings and conclusions does not follow the chronology of the empirical chapters but, instead, focuses on two main issues mentioned in the first chapter. First, I present the findings and conclusions related to attachment theory and, second, those with regard to the intracultural comparisons.

#### Attachment and the caregiving context

In the introductory chapter, two key assumptions of the attachment theory have been presented. The first assumption states that the development of young children's attachment relationship has biological roots: from birth onwards each child is genetically predisposed to attach itself to a primary caregiver (Bowlby, 1969). This means that under 'normal' circumstances, all infants should have developed an attachment relationship with their primary caregiver by the end of their first year of life. In the present Indonesian sample, all children indeed appeared to be attached to their mother in one way or the other. From this, the conclusion can be drawn that the display of patterns of attachment behaviors of Indonesian children towards their significant caregiver provides evidence that attachment development is a universal biological

phenomenon.

The second key assumption states that the child's attachment security reflects the quality of caregiver care. In other words, that individual differences in the quality of the attachment relationship are the result of differences in the quality of care that the children receive. In the present Indonesian sample, the security of the attachment relationship was indeed found to be associated with the provision of higher quality support by the mother. The findings in the present study show that children with a secure attachment towards their caregiver receive a higher quality of caregiver care than children with an insecure attachment relationship. Furthermore, insecure-disorganized children were found to receive significantly lower quality of maternal support than children with other attachment qualities. It appears that Indonesian mothers of children with a disorganized attachment relationship are least able to provide adequate support for the social and emotional development of their children. The present findings support attachment theory and are in accordance with research findings in European and North-American settings, as well as in Japan (e.g., DeMulder & Radke-Yarrow, 1991; Lyons-Ruth, 1996; Lyons-Ruth et al., 1991; Vereijken, 1995).

In line with his other ethologically inspired viewpoints, Bowlby (1988) assumed that parenting behavior is also genetically predisposed to some degree and ready to become sensitively attuned to the infant's signals. However, as indicated in the introductory chapter, the allocation of personal resources by the parent towards a child is finite. In other words: "Giving time and attention to children means sacrificing other interests and other activities" (Bowlby, 1988, p.2). For this reason, the present study investigated which aspects of the Indonesian caregiving context might facilitate or hinder the development of a sensitive attunement of the caregiver towards signals and needs of the child.

Starting from the finding that the quality of care is related to attachment security, a comparison of the Indonesian distribution of secure versus insecure attachment classifications with distributions in other cultures gives us a first clue with regard to the relation between the quality of parental care and the Indonesian caregiving context. In the present Indonesian sample the proportion of secure versus insecure and the proportion of disorganized attachment versus other attachment qualities was found to be comparable to the global distributions presented in two meta-analyses (Van IJzendoorn & Kroonenberg, 1988; Van IJzendoorn et al., 1992). In other words, the percentage of securely attached children (52.2%) and disorganized attached children (19.6%) in this sample was not different from the corresponding percentages found across cultures. This finding does not support the popular view that depicts Indonesian mothers as generally very warm, supportive, and nurturing towards their small children. Many Indonesian mothers carry their young children with them in a *slendang* during the daytime and appear to 'give in' to many of the wishes and needs of the children. This popular view of Indonesian mothers, however, appears to be a stereotype, because the distribution of attachment qualities in Indonesia shows that many Indonesian mothers were not able to provide a secure base for their children.

Interesting cultural differences were found with regard to the proportions of

insecure-avoidant and insecure-resistant classifications. The proportions of avoidant (6.5%) and resistant (19.6%) classified children deviated significantly from the global distribution but were comparable to the distributions found in Japanese samples (Van IJzendoorn & Kroonenberg, 1988; Van IJzendoorn et al., 1992). This finding might be related to the quality of parental care, with more Indonesian mothers behaving inconsistently sensitive (leading to resistant attachment) than consistently insensitive or rejecting (leading to avoidant attachment). In Chapter 7 I argued that the ecological circumstances (e.g., co-sleeping) and Indonesian norms of responding to infant crying and other attachment behaviors may increase the likelihood of a pattern of inconsistent sensitive care rather than a pattern of consistent rejection. More general, the findings with regard to the distribution of attachment classifications give a first indication that the quality of care of Indonesian mothers is --just like that of mothers in other cultures-- not unrelated to aspects in the caregiving context which may limit the provision of high quality care to all children.

The relation between the quality of parental care, aspects of the caregiving context, and attachment security was also examined more directly. Aspects of the Indonesian caregiving context were not related to the security of the mother-child attachment relationship with the exception of family education level that tended to be higher for children with a secure attachment classification. The finding in Chapter 5 that family education level predicted the quality of maternal support may explain the almost significant relation between attachment security and family education level. For the three insecure attachment groups, however, the caregiving context of the children differed significantly. Resistant children were more often found in families with a lower education level, lived in a poorer physical environment, and had parents who were less involved with preventive health care than children with other attachment qualities. In contrast to resistant children, disorganized children were more often found in extended families and in families more active in preventive health care. Avoidant children lived in families that were less inclined towards child-centered festivities than other families. Perhaps mothers of insecurely attached children have more difficulty in sacrificing other interests and activities in the parenting context in favor of time and attention to their children than mothers of securely attached children. Mothers with secure children appear to provide their children with a high quality of care irrespective of certain contextual circumstances.

It has been postulated that the ability of the parent to provide a secure base to their child is dependent upon three domains of determinants: psychological resources of parents, characteristics of the child, and contextual sources of stress and support (Belsky, 1984). These determinants interact with each other. The present study focused on the role that the caregiving context plays in relation to the quality of care and attachment security. From the above-mentioned findings it is hypothesized that the psychological resources of parents (e.g., resilience to cope with stressful circumstances, attachment histories) with secure children may downplay the impact of the contextual characteristics on their relationship whereas the contextual sources of stress and support have a stronger impact in case of parents with a lower capability to cope with



characteristics of their caregiving context. Unfortunately, this study did not gather data on psychological resources of parents.

### Intracultural similarities and differences

One of the aims of the present thesis was to investigate similarities and differences between families living in the same Sundanese-Indonesian culture. Examination of intracultural variation was considered to be relevant in comprehending the roots of social and economic stratification in the development of Indonesian children. Therefore, socioeconomic similarities and differences between families were the main focus of the present intracultural comparisons. Two empirical chapters have reported about these similarities and differences. First, intracultural variation in the context of parenting was examined in Chapter 4 with material gathered during participant observations and ethnographic interviews. To describe the Indonesian parenting context, three contexts (the immediate environment, the social and economic context, the cultural context) and five domains (family structure, education, wealth, health, residential mobility) were distinguished. Second, intracultural variation in the quality of the immediate environment was investigated in Chapter 6 with material gathered by means of a questionnaire and observations of maternal behavior in two different settings. This, more detailed investigation of the immediate environment of Indonesian children, included two components: the quality of the home and the quality of maternal support provided to the child.

The first intracultural comparison, as described in Chapter 4, revealed that the parenting context of the families in the two communities differed with respect to many variables located in the three contexts and five domains. The finding that low-middle SES families scored significantly higher than the low SES families on variables such as economic wealth (as assessed in the social and economic context) and family education level (as assessed in the immediate environment) was not surprising, because these variables had been used as criteria to assign the families to the two SES groups. Significant intracultural differences in education and wealth as assessed in the other contexts point to the coherence of favorable versus less favorable conditions in which parents and children develop: economic wealth and a higher education level in the family go together with a wealthier immediate environment and higher educated extended family members. In the domains of family structure, health, and residential mobility, some additional significant differences were found that underline the assumption of coherence of conditions in favor of the low-middle SES group. For instance, the higher incidence of remarriages and mobility in families of low SES may be a source of more stress and less stability in these children's home environment than in those of children from low-middle SES families.

It might be inferred from these findings that there are more sources of contextual stress for low SES parents living in Loompoor than for low-middle SES parents in Sheraton. Conditions of stress may influence parenting negatively and can lead to uninvolved parenting in which parents are so overwhelmed with their own stresses and problems that they have less time or energy to devote to child rearing



(Maccoby & Martin, 1983). In Chapter 5 and Chapter 6, the quality of maternal support was indeed found to be related to characteristics of the parenting context. Mother's supportive behavior was related to several contextual variables in the domains of education, wealth, and health. Especially, mothers from higher educated and more mature families gave higher quality support to their children than mothers from lower educated and newly established families.

The finding that differences between the two SES groups exist in all domains and contexts shows that the low SES and low-middle SES families also differ in cultural context variables. The pattern of these differences in parental beliefs and attitudes between the SES groups can be summarized as reflecting a 'modern versus traditional' attitude towards the development of children with low-middle SES families having a more 'modern' orientation than low SES families. This 'modern' orientation was also revealed by the finding of a higher-order construct representing a broad dimension of the Indonesian caregiving context. This construct was labeled 'Social climbing'. In Japan, Kashiwagi (1996) found similar intracultural differences. In her sample, parents with a higher level of education were significantly more westernized in life-style and thinking about parenting than parents with a lower level of education who held more closely to traditional Japanese values.

The second intracultural comparison, as described in Chapter 6, was a detailed examination of differences in the quality of the home and the quality of maternal support --two qualitative components of the immediate environment-- between the two SES groups and also examined differences with regard to gender and age of the child. The relation of socioeconomic status with both the quality of the home and the quality of maternal support proved to be quite strong. Although this relation was stronger for preschoolers, it is evident for both the immediate environment of preschoolers and that of younger children. Socioeconomic status differences were not only found with regard to physical aspects but also for social aspects of the immediate environment. For instance, the maturity of children from low-middle SES families was more encouraged than the maturity of children from low SES families. Or, mothers of low-middle SES families gave their children more emotional support and higher quality of instructions during the structured play session than mothers of low SES families. In other words, the wealth of a family is not only associated with the physical appearance of the home environment but also with the social quality of the home and the quality of the support that a mother is able to provide to her child.

After investigating gender effects the conclusion was drawn that the immediate environment did not differ greatly for Indonesian boys and girls. With regard to age differences, it was concluded that the quality of the home and the quality of maternal support of Indonesian children did not appear to change in the first six years of their lives. In addition to the strong relation found between socioeconomic status and general variables in the caregiving context in the first intracultural comparison, findings from the second intracultural comparison underlined the relevance of socioeconomic characteristics in the child's immediate environment.

## Culture and Adaptation in Retrospect

The culture concept has been used in two ways in the present thesis. The first --descriptive-- usage related culture to a group of people who share the same ethnic background. A clear example of using the culture concept as a descriptive tool is the intracultural comparison that examined differences within the Sundanese-Indonesian 'culture'. The second --analytical-- usage referred to the goals, aspirations, and guidelines of individual parents; in other words to the variables as assessed in the cultural context of the ecological model with its three contexts and five domains. Although the 'cultural' context could have been labeled differently, I chose to stay close to the phrasing of Sroufe and his colleagues (1996) in their description of Bronfenbrenner's model and, in a way, close to the definition of social anthropologists who think it is important to distinguish between behavior and attitudes and, subsequently, consider attitudes to be cultural phenomena. Care has been taken to avoid treating the concept as either an independent and all-encompassing entity, or as a dustbin for the convenient disposal of unexplained residual variance. The use of the culture concept in both a general descriptive manner and an analytically restricted way has proven to be workable for the present research project.

In the first chapter, a distinction was made between an individual perspective and a group perspective on adaptation. An individual perspective adheres to the process in which the child and its caregiver adapt to each other and to their circumstances. The present study supported the view that attachment patterns are adaptations of the child to different styles of parental care with the quality of support reflecting the caregiver's capability to allocate personal resources to the particular child under investigation. In turn, parental care is also adapted to its circumstances. For instance, an Indonesian mother from a higher educated and more mature family appeared to be more able to provide her child with high quality support than a mother from a lower educated and newly established family.

The group perspective on adaptation is associated with describing and analysing human behavior at a group level. Social anthropology uses this approach to explain the behavior of parents living in the same society. In a way, this perspective relates to the intracultural comparison that was discussed earlier because there families were put in two groups on the basis of a general characteristic --socioeconomic status-- and compared on a number of variables. However, social anthropologists would go further and also take other general characteristics of the group into account such as the average age at which parents of that group marry and get children (i.e., reproduction). For instance, the general finding that having children starts at an early age in Indonesia (i.e., below 18 years of age) may explain the relative inexperience of mothers from newly established families versus mothers from more mature families. The reproduction strategy of these Indonesian families puts 'teenagers' in the position of mothers. At this more 'anthropological' level, an evolutionary explanation was given by Belsky,

Steinberg and Draper (1991) who found evidence for the existence of two divergent reproduction strategies. One is an opportunistic, risk-taking strategy with earlier sexual activity, unstable partnership, and limited parental investment and the other strategy is characterized by delayed sexual activity, stable partnership, and mutual commitment and reciprocal benefit between parents and children. Both strategies are adapted to their circumstances.

In the introductory chapter, a scheme of LeVine and his colleagues was introduced that is supposed to contain all elements necessary to explain parental behavior at the group level. It distinguished between biopsychological, economical, and cultural dimensions of human development. Each dimension provides its own specific capacities, constraints, and directions for parental behavior and also represents separate sets of theoretical assumptions. The biopsychological model assumes that universal biological constraints determine parental behavior. This dimension is strongly represented in attachment theory. Findings of the present study support the existence of a universal relation between caregiver-child attachment patterns and the quality of care provided by the caregiver. The economic utility model assumes that parental behavior reflects the socioeconomic conditions of the family. This model also proved to render a plausible explanation of parental behavior in the present thesis. The findings showed a relatively strong relation between the social and economic circumstances and the quality of parental behavior. The cultural dimension explains parental behavior with the use of a semiotic model. This model assumes that parents are influenced primarily by conventions about the way to behave appropriately. In the present thesis, the semiotic model was a possible explanation of some aspects of the supportive behavior of Indonesian mothers. For instance, the existence in Indonesia of the social pressure to respond to the child's signals may well be explained by a semiotic model. Each of the models has a certain validity but should not be adhered to solely. For instance, a consequence of taking the semiotic model too seriously would be that intracultural variation in the form of socioeconomic differences is given too little credit.

From LeVine's scheme some researchers might deduct that the investigation of parental behavior must focus exclusively on the cultural dimension because the other two dimensions have already rendered enough support and not provided new information regarding parental behavior. This stance easily leads to cultural determinism and pays too little attention to psychological processes behind parental differences. In my opinion, researchers who explain parental behavior at the group level should always acknowledge that these explanations are gross generalizations and do not predict much about the individual parent's behavior. They, however, have a certain heuristic value in bringing up possible hypotheses that may direct the investigation of adaptation at an individual level. For instance, it might be hypothesized that the quality of support is lower in families where the mother has her first child at a young age.

### Reliability and Validity

With regard to the reliability of the measures in the present study, the general

conclusion is that the reliability of the assessments was satisfactory. Only the HOME for infants and toddlers was not found to be very reliable. Its internal consistency, as a measure for the bottom line of reliability (Anastasi, 1982; Drenth & Sijtsma, 1990), was moderately low. In Chapter 6, possible explanations for the lack of internal consistency stated that the Indonesian caregivers might not give high priority to attune the immediate environment to their infants and toddlers' needs because they carry them around most of the time for fear of hazards or infections. In other words, qualitative aspects of the immediate environment appeared to be less coherent for Indonesian infants and toddlers than for preschoolers. In general, however, most of the instruments proved to be reliable.

A discussion of the validity of the methods used in the present study requires an introduction. Why have I used tests in Indonesia that were standardized in western countries? A universal claim of a developmental theory as attachment theory is generally accepted and has also been supported in the present study, but the validity of western standardized tests for non-western societies is often questioned. Developmental psychologists may be strengthened in this by the statements of anthropological researchers who reject any form of universalism and stress the uniqueness of societies. In this argument, two enstrangled rules are followed in an implicit manner: a geographical rule and a methodological rule. The geographical rule implies a boundary between societies where children's development can be measured with the yardsticks of the discipline versus societies where children can not be likewise measured. I think that this boundary between 'western versus non-western' societies is highly arbitrary. First of all, one can object to a geographical limitation on the ground that the boundary is not underpinned by research providing evidence of its existence and one can conclude that the boundary is a belief instead of a fact. Secondly, affluent societies (to which the distinction between western versus non-western usually points) contain immigrant pockets. These immigrants have crossed the geographical boundary and prove that it is hard to speak of western societies as if they were homogeneous and share the same culture. With the present state of the art in developmental research, it is better to include contextual elements, among which the cultural context, to investigate variability in psychological processes than to neglect the influence of the context (e.g., Pike & Plomin, 1996). In other words, developmental research needs to take the context into account in every project and in every society in order to put the child's development into perspective. Besides, when one follows a truly relativistic stance one would automatically reject any theorizing. This is, therefore, not an option to adhere to when considering research in non-western societies and at other times to neglect in case of research 'at home'.

The methodological rule with regard to the validity of western standardized tests for non-western countries states that the reliability and validity of research instruments should be investigated thoroughly and instruments should be revised in cases where the sample deviates strongly from the sample for which the instrument was developed. In many ways, this is a sound scientific rule. The only problem with sticking closely to this rule in each research project is the costs involved in terms of time and money. When a project has to find the most optimal fit between the sample and the

instrument a large pilot-study is necessary and a possible outcome would be a revised instrument. In general, a strong revision of the instrument will reduce its comparability with research findings in other samples. The present research project offered no room for a pilot-study in order to develop new instruments or to investigate the validity of instruments from other studies. Therefore, it followed the practical strategy of finding the most suitable instrument already available and checking its reliability and validity by relating scores with those assessed with comparable instruments and examining the relation of the construct in question with other constructs in the same conceptual framework.

The validity of the research methods in the present study has been examined exploratory. The Strange Situation appeared to be valid in this study. It is a procedure for the assessment of the quality of the attachment relationship of a child with its caregiver and provides a judgment of the reactions of the child. The culture-freeness of the judgement as well as the comparability of the child's expressive behavior across cultures have been a major issue in critical reviews (e.g., Lamb et al., 1985). Nowadays, the Strange Situation is accepted as a valid instrument under the condition that its procedures should be properly applied, i.e. curtail the separation episodes in case of high levels of separation distress. In the present project, care was taken to apply the procedure according to these prescriptions.

The HOME assessed the quality of the Indonesian home environment of respectively infants/ toddlers and preschoolers. In the present sample, the HOME for infants and toddlers (IT-HOME) appeared to be less valid than the HOME for preschoolers (EC-HOME). The construct validity of the IT-HOME was, for example, undermined by the lack of a relation between its subscale 'Parental responsivity' and the quality of maternal support as observed during mother-child interactions. Theoretically, both constructs should be related. It might be interesting to investigate whether the lack of correlation can be explained by, for instance, a general attitude of Indonesian mothers to use emotional and verbal responsivity as a control technique instead of as a way to show emotional support.

A more general issue is the cultural validity of the items of the HOME. Cultural validity at the item level assumes that the items measure similar aspects of the quality of the home in every culture. For example, item 38 from the EC-HOME states that: "Some delay of food gratification is demanded of the child, e.g. not to whine or demand food unless within half an hour of meal time". In general, Indonesian mothers do not believe that snacking just before dinner ruins the appetite of the child (Carlin, 1996; Schroeder, 1986). This was confirmed in the present sample where only three caregivers demanded some delay of food gratification. However, the item may still be informative about the Indonesian situation and appears to measure the general attitude towards delay well. Another example is item 22 from the IT-HOME: "Child gets out of house at least four times a week". This item appeared to be less relevant for this particular sample of relatively poor families living in a tropical country who often spend much time outside their small houses. For all families the answer was 'yes'. In case of rich Indonesian families living in houses like 'fortresses', the item might have been very useful in order

to differentiate between families.

These examples show that cultural characteristics influence the range of the responses which is, on its turn, related to the internal consistency of the test because these items do not differentiate between families. Overall, however, it might be concluded that the quality of the home appeared to relate meaningful to other constructs such as the quality of the support provided by the Indonesian mothers and socioeconomic status and was therefore considered to be valid enough for the present research purposes.

The ecological validity of the conditions under which the dyads were observed was guarded by the use of anthropological research methods. For instance, the use of participant observation over an extended period of time informed us that Indonesian mothers rarely are in a free play situation at home with the children deciding what to play (i.e., free imaginary play). When mothers play with their children it is usually in an instructive manner like introducing a toy or teaching the names of objects. The introduction of a structured play session was therefore not awkward for Indonesian children and their caregivers. It would have been a less ecologically valid measurement of the quality of support Indonesian mothers provide their children in case I had only used a free play session to measure the quality of maternal support. Furthermore, the quality of maternal support in the structured play session was meaningfully correlated with maternal sensitivity as observed at home, with the attachment quality of the children, and a number of characteristics of the caregiving context. These findings thus support both the construct and ecological validity of the maternal support measures.

In general, the ecological validity of the present project was enhanced by including a long period of adjusting to the research setting and the sample and including several hours of home observations by the researcher in person. Besides that, the psychological assessments in the present project included normal everyday behavior of parents and children and reflected conditions (e.g., separations, structured play) that were not uncommon to most of the parents and children.

### Closing Remarks

This final section relates the present research project and findings to other anthropological and psychological research by focusing on the issues of the generalization of research findings, the scientific and practical relevance of the project, and a field of questions unanswered in the project.

With regard to generalization of the present findings, it needs to be mentioned that the sample only includes children who are not physically or mentally disabled. Furthermore, the sample consists of two groups of low income families. As the present study has shown, differences in the level of socioeconomic status are not only related to the social and economic aspects of the parenting context but also to cultural aspects and to social and physical variables in the child's immediate environment. Therefore,



generalization of the conclusions to higher socioeconomic status groups in Indonesia does not seem feasible and would require a separate investigation. Another characteristic of the sample is its ethnicity, namely Sundanese Indonesians. More research is needed in order to find out which contextual characteristics are specific for the Sundanese culture and which are more universal. For instance, the finding that insecure-disorganized children, compared to insecure-resistant children, were more often found in extended families may be specific for the Sundanese situation but may also be true for extended families in other societies. Although generalizations from the present sample can only be made tentatively, it may be concluded that the interplay between attachment security, the quality of maternal support, and some of the contextual characteristics appeared to involve the same psychological processes observed in samples from other cultures.

Part of the scientific relevance of the present project has been the testing of key assumptions of attachment theory in a less well-studied society. These assumptions have only scarcely been investigated in non-western countries (some notable exceptions; Morelli & Tronick, 1991; Vereijken, 1995). Moreover, the relation between the specific contextual variables and the development of attachment relationships has proven to be an interesting line of investigation with both theoretical and practical implications. The present thesis aimed to be relevant by studying development-in-context as a response to Bronfenbrenner's observation (1979, p.21) that much of developmental research can be characterized as the study of development-out-of-context. Of special relevance is the finding that the development of different forms of insecure attachment relationships appears to be rather context-sensitive.

With regard to sociological theories about stratification, the present research has shown that socioeconomic status is not the only constraint that relates to the quality of parental behavior and subsequently to child development. Biopsychological constraints and culturally-specific characteristics of the Indonesian caregiving context play an additional role in explaining the quality of support that Indonesian mothers are able to provide to their children. From the interludes, it has become clear that social stratification is not so much a static situation but depends upon many forces besides the social and economic characteristics of the family.

Practical relevance of the study lays in the contribution to an empirical base for intervention programs focused on Indonesian parents and their young children. Findings from this study have shown that it is important for intervention programs in Indonesia to pay special attention to young inexperienced parents with low educational levels and to help them understand what qualitative caregiving is all about. An adapted program might focus on enhancing the quality of the relationship between mothers and their young children by introducing and explaining dimensions of parental support (e.g., intervention project "Instapje" of Riksen-Walraven, Mey, Hubbard, and Zevalkink, 1996). In addition, an adapted program might focus on the improvement of the quality of the play environment and provide information like how this improvement can be realised with minor expenses. It might also include extra attention to improving the



quality of the relationship between mothers and children living in extended families.

The present study may also be practically relevant in providing a contextual data base to be used for cross-cultural comparisons. For instance, Surinam-Dutch mothers with more than two children scored significantly lower on the support scales 'supportive presence' and 'respect for autonomy' than Surinam-Dutch mothers with only one child (Riksen-Walraven & Zevalkink, in preparation) whereas Indonesian mothers scored higher when they had more children.

This research project has had the intent to do developmental research in a different way than outlined in Bronfenbrenner's quotation with which the introductory chapter opened. This was realised by combining research in developmental psychology with data collection methods from social anthropology. Although the present project has provided some answers with regard to the child's development-in-context, it has also raised a lot of questions. In the present research project, one of the issues that remains unanswered is the association between the social and emotional development of the older children --for whom no attachment qualification was available-- and the parenting context. In addition, it might have been interesting to examine the allocation of parental resources to different siblings and its relation with each child's development. However, this would have led too far from the central topic of attachment. In a similar vein, the present thesis has only paid lip service to the issue of two-way interaction between the child and its environment. The contribution of the child's characteristics has not been investigated. For instance, the relation of the child's temperament or cognitive abilities with the quality of parental support could have been assessed.

Another issue concerns intragroup variability. For instance, a positive association of several measures of the quality of maternal support with socioeconomic status and the absence of a relation of attachment security with socioeconomic status appear to be discrepant findings. The demarcation between SES groups is just one way to investigate intragroup variability. In analyses in which SES groups were combined, family education level and family maturity proved to be the main variables in association with the quality of maternal support. Family education level was confounded with SES and probably led to the above described discrepancy. The presentation of both results is, nevertheless, revealing because it warns against generalizations that are only based on dividing families on the ground of their SES. The method of investigating intragroup variability by means of contextual variables has, therefore, proven to be useful but further investigation is certainly warranted.

A related issue is a possible confounding between community and socioeconomic status: the two SES groups came from two different communities. To overcome the existence of a possible confounding, care was taken not to include contextual measures reflecting the condition of the settings in which the child plays outside the home. The possibility of a confounding, nevertheless, remains an unresolved issue.

Other unanswered questions relate to the usefulness of Bronfenbrenner's ecological framework and the construction of variables for each of the contexts and domains. The ecological framework has proven to be a relatively easy way to structure

an array of diverse measures that describe the caregiving context. Whether it was the best way to do it is still a matter of investigation. The construction of aggregated variables is confronted with the same unresolved issue. In some cases, the use of separate measures might have led to stronger and better interpretable results than the use of aggregated variables.

The combination of anthropological and psychological research methods has steered up several conflicting conceptual issues. For instance, the concept of adaptation carries different connotations in both disciplines. For anthropological researchers it may have a distinct evolutionary meaning whereas the concept in developmental psychology is more related to the ecological tradition of putting the development of the child 'in context'. In addition, the thesis has also raised complicated methodological issues that are hard to unravel and solve. Shifting between levels of analysis is a good example. The thesis describes the behavior of individuals, a group of individuals, Indonesians, and people in general. The balance between the uniqueness of behavior (e.g.,  $n=1$  studies) and a gross generalization (e.g., culture and personality approach) deserves more attention in interdisciplinary research. Nevertheless, the present combination of anthropological and psychological research methods has been an inspiring enterprise for me personally and revealed several theoretical, methodological, and conceptual issues that --in my opinion-- need to be taken into account in order to ensure the ecological validity of developmental research.

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## Appendix A

### The Census Measures Categorized by Subject, Mother, Father, Household, Siblings, and Grandparents/ Aunts/ Uncles

#### Subject

1. Identification number subject
2. Identification number household (a household is defined as people who live in the same house and have a shared budget on food and other household necessities)
3. Sex of subject: 1. female 2. male
4. Date of birth subject (dd/mm/yy)
5. Place of birth subject:
 

1. Present location of subject	4. Other area of Bandung
2. In neighborhood	5. Outside Bandung, other city
3. Surrounding neighborhood	6. Outside Bandung, village
6. Place of residence subject: 1. Loompoor  
2. Sheraton
7. Preschool subject: Subject is at the moment visiting a preschool: 0. no 1. yes
8. Place of preschool: 0. no preschool
 

1. "Nur Endah": poor, private	
2. "Aisyiyah": average, religious	
3. "Dago Barat": average, private	
4. other	
9. Number of siblings subject: Number of siblings ever born, including subject and children out of earlier marriages mother
10. Number of living siblings subject: Number of siblings alive at the time of the census, including subject
11. Number of married siblings subject: Number of siblings who are married
12. Number of children of siblings: Number of children of siblings of subject
13. Ranknumber subject: Place in birth order
14. Number of older sisters
15. Number of older brothers
16. Number of younger sisters
17. Number of younger brothers
18. Vaccination rate subject: The relative amount of vaccinations subject has received (B.C.G., DPTI, DPTII, DPTIII, PolioI, PolioII, PolioIII, Measles)
 

0. no information	3. three, four or five
1. nothing	4. one or two not
2. one or two	5. complete
19. Nutritional status of subject (based on official health registration (KMS), checked on errors of administration by researcher):
 

0. no information	3. bad: undernourished
1. good: above average weight	4. severe: malnourished
2. moderate: average weight	

#### Mother of subject

20. Age of mother in years
21. Date of birth mother (dd/mm/yy)
22. Place of birth mother (see codes place of birth subject)
23. Highest level of completed education of mother:
 

00. no information	08. SMA- Senior High School (3 yrs)
01. No education	09. SPG- Teachers High School
02. A few years of primary sch.	10. STM- Technical High School
03. Primary school	11. SMEA- Administrative High Sch.
04. One or two years of sec.sch.	12. A few years of University
05. SMP- Junior High School (3 yrs)	13. Finished University
06. ST- Low Technical School	
07. One or two years at SMA level	

24. Place of primary school mother:  
     0. no primary school/no info.  
     1. Bangkok, Biru, Al hidayah: poor, religious  
     2. Cistitu: poor, state  
     (see Braadbaart, 1989, on status of religious schools)
25. Number of siblings mother: Number of siblings ever born, including mother
26. Number of living siblings mother: Number of siblings alive at the time of the census, including mother
27. Number of married siblings mother: Number of siblings who are married (incl. mother)
28. Number of children of siblings: Number of children of siblings of mother (incl. mother)
29. Ranknumber mother: Place in birth order
30. Number of older sisters of mother
31. Number of older brothers of mother
32. Number of younger sisters of mother
33. Number of younger brothers of mother
34. Number of marriages of mother
35. Number of children out of earlier marriages mother (excl. children of present marriage)
36. Number of children out of present marriage mother
37. Age of mother at start of first marriage
38. Age of mother at start of present marriage
39. Length of earlier marriages mother: length in years of all earlier marriages of mother
40. Length of present marriage mother: length in years of present marriage
41. Presently using contraceptive methods: 0. no 1. yes
42. Presently used contraceptive method:  
     0. no contraception/ unknown  
     1. pill  
     2. 3-monthly hormone injection  
     3. I.U.D.  
     4. condom  
     5. sterilized  
     6. other
43. Length of use of present contraceptive method (months)
44. Length of use of earlier contraceptive methods: total amount of time in months of earlier used methods
45. Ever used pill: 0. no 1. yes
46. Ever used hormone-injection: 0. no 1. yes
47. Ever used I.U.D.: 0. no 1. yes
48. Ever used condom: 0. no 1. yes
49. Ever used other kind of contraceptive method: 0. no 1. yes
50. Number of occupations of mother
51. Primary occupation of mother: (criterium for assigning primary/secondary occupation is no. of hours spent in the job)
- |                                |                                                       |
|--------------------------------|-------------------------------------------------------|
| 00. housewife / no occupation  | 15. neighborhood store: dry goods                     |
| 01. farming                    | 16. neighborhood store: dry goods and unprepared food |
| 02. factory worker             | 17. health services                                   |
| 03. carpenter                  | 18. house servant                                     |
| 04. tailor                     | 19. shop assistant                                    |
| 05. food processing            | 20. hotel employee                                    |
| 06. small repairs              | 21. consultant                                        |
| 07. driver                     | 22. money lender                                      |
| 08. construction labourer      | 23. renting out a room                                |
| 09. security guard             | 24. renting out a house                               |
| 10. mechanic                   | 25. school teacher                                    |
| 11. salesman                   | 26. desk clerk                                        |
| 12. shopkeeper                 | 27. police / army                                     |
| 13. ambulant vendor            | 28. maintenance                                       |
| 14. food stall, fixed premises | 29. retired                                           |
- (Occupational classification in sectors:  
 Primary sector; 00, 01  
 Secondary sector of manufacturing; 02 till 05)

Tertiary sector of trade, transport and services; 06 till 24

Quartary sector of civil service; 25 till 29)

52. Primary occupation mother, selfemployed : 0. no 1. yes  
 53. Primary occupation mother, employed in civil service: 0. no 1. yes  
 54. Primary occupation mother, employed in private company: 0. no 1. yes  
 55. Income of primary occupation mother: In Rp. /1000 a month  
 56. Primary occupation mother, working hours: hours / week  
 57. Secondary occupation mother: see list primary occupation mother  
 58. Secondary occupation mother, selfemployed: 0. no 1. yes  
 59. Secondary occupation mother, employed in civil service: 0. no 1. yes  
 60. Secondary occupation mother, employed in private company: 0. no 1. yes  
 61. Income of secondary occupation mother: In Rp./1000 per month  
 62. Secondary occupation mother, working hours: hours / week  
 63. Total income of mother: In Rp. /1000 per month

**Father of subject**

64. Age of father in years  
 65. Date of birth father (dd/mm/yy)  
 66. Place of birth father (see codes place of birth subject)  
 67. Place of residence father (see codes place of birth subject)  
 68. Frequency of visits:  
     0. Not living in other place      4. Once every 3 months  
     1. Once every week                5. Twice a year  
     2. Twice a month                  6. Less / other  
     3. Once a month  
 69. Highest level of completed education of father (see codes education mother)  
 70. Place of primary school father (see codes place of primary school mother)  
 71. Number of siblings father: Number of siblings ever born, including father  
 72. Number of living siblings father: Number of siblings alive at the time of the census, including father  
 73. Number of married siblings father: Number of siblings who are married (incl. father)  
 74. Number of children of siblings: Number of children of siblings of father (incl. father)  
 75. Ranknumber father: Place in birth order  
 76. Number of older sisters of father  
 77. Number of older brothers of father  
 78. Number of younger sisters of father  
 79. Number of younger brothers of father  
 80. Number of marriages of father  
 81. Number of children out of earlier marriages father  
 82. Number of children out of present marriage father  
 83. Age of father at start of first marriage  
 84. Age of father at start of present marriage  
 85. Length of earlier marriages father: length in years of all earlier marriages of father  
 86. Length of present marriage father: length in years of present marriage  
 87. Number of extra wives of father: 0. no extra wife  
     1. 1  
     2. 2 or more  
 88. Number of occupations of father  
 89. Primary occupation father (see codes primary occupation mother)  
 90. Primary occupation father, selfemployed: 0. no 1. yes  
 91. Primary occupation father, employed in civil service: 0. no 1. yes  
 92. Primary occupation father, employed in private company: 0. no 1. yes  
 93. Income of primary occupation father: In Rp. /1000 per month  
 94. Primary occupation father, working hours: hours / week  
 95. Secondary occupation father (see codes primary occupation mother)  
 96. Secondary occupation father, selfemployed: 0. no 1. yes  
 97. Secondary occupation father, employed in civil service: 0. no 1. yes  
 98. Secondary occupation father, employed in private company: 0. no 1. yes

99. Income of secondary occupation father: In Rp./1000 per month  
 100. Secondary occupation father, working hours: hours / week  
 101. Total income of father: In Rp. /1000 per month

### Household in which subject lives

102. Number of members of household  
 103. Number of bloodrelated members of household  
 104. Number of non-relatives in household  
 105. Number of females in household  
 106. Number of males in household  
 107. Number of siblings in household  
 108. Presence of grandmother: 0. no 1. yes  
 109. Presence of grandfather: 0. no 1. yes  
 110. Presence of aunt: 0. no 1. yes  
 111. Presence of uncle: 0. no 1. yes  
 112. Presence of niece: 0. no 1. yes  
 113. Presence of nephew: 0. no 1. yes  
 114. Marital situation: 1. First marriage, both partners  
 2. One of the partners remarried  
 3. Both partners remarried  
 115. Health index: 0. No information  
 1. No serious health problems  
 2. One person with serious health problems (=life threatening)  
 3. Two or more persons with serious health problems  
 4. One person died because of health problems/accident  
 5. Two or more persons died because of health pr./accident  
 116. Period of health problems: 0. Never occurred/ no info. 1. Past 2. Present  
 117. Vaccination index of siblings, incl. subject:  
 0. Subject is only child/ no info. 3. Average; about 50 % vaccinated  
 1. Very passive; no children vaccinated 4. Active; one or two not vaccinated  
 2. Passive; one or two children vaccinated 5. Very active; all children vaccinated  
 118. Number of places of residence  
 119. Length of time in earlier places of residence: total amount of time in years of earlier residential places  
 120. Length of time in present place: in years  
 121. Type of present residence in relation to family of origin:  
 0. No information 4. Matrilocal + patrilocal  
 1. Independent location 5. Matrifocal; mothers family house of origin  
 2. Matrilocal; mothers family in neighborhood 6. Patrifocal; fathers family house of origin  
 3. Patrilocal; fathers family in neighborhood 7. House of other family member  
 122. Number of persons in household with a job  
 123. Number of occupations of the persons with a job  
 124. Total amount of income  
 125. Income available for household  
 126. Parents of subject in possession of a house: 0. no 1. yes  
 127. In possession of land: 0. no 1. yes  
 128. In possession of inherited land: 0. no 1. yes  
 129. In possession of a car: 0. no 1. yes  
 130. In possession of a motorbike: 0. no 1. yes  
 131. In possession of a bicycle: 0. no 1. yes  
 132. In possession of a television: 0. no 1. yes  
 133. In possession of a radio: 0. no 1. yes  
 134. In possession of a sewing machine: 0. no 1. yes  
 135. In possession of a refrigerator: 0. no 1. yes  
 136. In possession of furniture: 0. no 1. yes

137. Quality of furniture:
  0. no furniture/ no info.
  1. bad
  2. average
  3. good
138. Quality of the house:
  0. no information
  1. bad condition
  2. average condition
  3. good condition
139. Material used in building the house:
  0. No information
  1. Bamboo, triplex
  2. Half bamboo, half stones
  3. Stones
140. Living space in house in square metres
141. Expenditures (all expenditures are average costs in Rp. /1000 per month) on housing
142. Expenditures on electricity
143. Expenditures on water
144. Expenditures on schooling
145. Expenditures on transport to school
146. Expenditures on daily transport not related to school
147. Expenditures on cooking fuel (minyak tanah= Rp 300/l)
148. Expenditures on clothing
149. Expenditures on recreational trips
150. Expenditures on rice (Rp 650/kg or liter) (1 kilogram rice=1.25 liter rice)
151. Expenditures on eggs (Rp 2000/kg)
152. Expenditures on milk
153. Expenditures on meat (Rp 7000/kg)
154. Expenditures on chicken (Rp 3000/kg)
155. Expenditures on fish (Rp 2000/kg)
156. Expenditures on salted fish (Rp4000/kg)
157. Expenditures on fermented bean curd - tempeh
158. Expenditures on fermented bean curd - tahu
159. Expenditures on vegetables
160. Expenditures on cigarettes, tobacco etc.
161. Expenditures on sweets and snacks
162. Primary place for buying fresh unprepared food:
  0. No information
  1. Warung
  2. Market nearby
  3. Wholesale market
  4. Supermarket
163. Primary place for buying dry goods (see codes for buying unprepared food)
164. Number of arisan mother is attending to: arisan is a kind of home banking with a group of other persons, who do not have to belong to the same household
165. Expenditures on arisan

### Living siblings subject

166. Ranknumber sibling: place in birth order
167. Date of birth sibling
168. Age of sibling in years
169. Sex of sibling: 1. female 2. male
170. Place of birth sibling (see codes place of birth subject)
171. Place of residence of sibling (see codes place of birth subject)
172. Highest level of completed education of sibling (see codes level of education mother except for 00. Too young/presently in school/no information)
173. Level of present education: level at which sibling is presently following education
  0. Too young/finished/no info.
  1. Preschool level
  2. Primary school level
  3. Low Secondary school level
  4. High Sec. school level
  5. University level
174. Place of primary school sibling (see codes place primary school mother except for 0. Too young / no information)
175. Place of preschool sibling (see codes place of preschool subject)
176. Vaccination rate sibling (see codes vaccination rate subject)
177. Married status of sibling: 0. no 1. yes
178. Number of children sibling
179. Place of birth partner sibling (see codes place of birth subject)

**Grandparents/aunts/uncles of subject**

180. Family of origin of grandparent/aunt/uncle:  
1. Mother's family 2. Father's family
181. Sexe of grandparent/aunt/ uncle 1. female 2. male
182. Age of grandparent/ aunt/ uncle in years (00 is default)
183. Grandparent/ aunt/ uncle is alive: 0. no 1. yes
184. Place of birth grandparent/ aunt/ uncle (see codes place of birth subject)
185. Place of residence of grandparent/ aunt/ uncle (see codes place of birth subject except for 0. Not alive/ no information)
186. Education of grandparent/ aunt/ uncle (see codes level of education mother)
187. Number of marriages of grandparent/ aunt/ uncle
188. Number of presently married wives for male grandparents and uncles



## Appendix B

### Ethnographic Interview Measures with Topics related to Parenting and the Child's Play Settings

1. Identification number of subject
2. Ideal number of children:
  1. no preference
  2. one or two children
  3. three children at most
  4. more than three children
  9. missing
3. Preference for sleeping arrangements:
  1. child alone in bed
  2. child with sibling(s)
  3. child with adult relative(s)
  4. child with parents/mother
  9. missing
4. Actual sleeping arrangements (see codes preference for sleeping arrangements)
5. Preferred form of living arrangements:
  1. Nuclear family
  2. extended family
  9. missing
6. Preference for preschool education:
  1. not interested
  2. interested, but considered too expensive
  3. highly preferred
  9. missing
7. School aspirations for older children:
  1. no aspirations
  2. mediocre aspirations, high school at most
  3. as high as possible
  9. missing
8. Value on religious education:
  1. not valued
  2. valued but due to present circumstances not practiced
  3. valued and practiced
  9. missing
9. Reported religious activities of mother:
  1. no activities
  2. prayers
  3. prayers and mesjid
  9. missing
10. Reported religious activities of father (see codes religious activities mother)
11. Reported secular activities of mother:
  1. no activities
  2. assisting in secular activities
  3. official active community member (kader)
  9. missing
12. Reported secular activities of father (see codes secular activities mother)
13. Everyday language at home:
  1. Sundanese
  2. Indonesian
  3. Bilingual
  9. missing
14. Fluency of mother in Indonesian language:
  1. not fluent
  2. more or less fluent
  3. fluent
  9. missing
15. Sanitary conditions in the house:
  1. no bathroom
  2. bathroom with limited possibilities (no running water or no toilet)
  3. bathroom, fully equipped
  9. missing
16. Preference for outdoor activities:
  1. no preference
  2. only in neighborhood
  3. preferred and sometimes out of neighborhood
  4. highly preferred and out of neighborhood
  9. missing
17. Remembering a child's birthday: 0. no
18. Celebrating a child's birthday: 0. no
19. Preferred pattern of prenatal care:
  1. not necessary
  2. starting one or two months before birth
  3. regular care
  9. missing
20. Prenatal care authorities:
  1. no prenatal care
  2. paraji (traditional birth attendant/ midwife)
  3. bidan (trained midwife)
  4. doctor
  9. missing
21. Preference for professional vs. traditional midwife at birth:

1. traditional midwife
2. traditional midwife for ceremonies and postnatal care, prof. midwife for birth
3. professional midwife for prenatal, birth, and postnatal care
4. doctor for prenatal care, birth in hospital
9. missing
22. Complications at birth: 0. no 1. yes 9. missing
23. Protective traditional care before birth:
  1. no traditional care 3. both parents follow traditional rules
  2. mother follows traditional rules 9. missing
24. Protective traditional care after birth:
  1. no traditional care 3. prolonged traditional care
  2. only some protection of infant by paraji in first weeks 9. missing
25. Circumcision of daughters after birth:
  0. no daughters 2. circumcised
  1. no circumcision 9. missing
26. Preference for modern vs. traditional medical treatment:
  0. no opinion
  1. traditional treatment as long as possible
  2. starting with traditional treatment, but if seriously ill shift to modern treatment
  3. only modern treatment
  9. missing
27. Intended or actual breastfeeding period:
  1. no breastfeeding 4. 0-24 months
  2. 0-12 months 5. more than 24 months
  3. 0-18 months 9. missing
28. Aspired goal of mobility:
  1. no change 3. a better house and a better neighborhood
  2. a better house in same neighborhood 9. missing
29. Presence of a yard: 0. no 1. yes 9. missing
30. Presence of a fenced yard: 0. no 1. yes 9. missing
31. Presence of a yard with a concrete floor: 0. no 1. yes 9. missing
32. Size of the yard in square metres
33. Number of sides of house with neighbours living within five meters
34. Nearness of river or stream within 20 metres of the house:
  0. no 1. yes 9. missing
35. Nearness of infrastructure to house:
  1. own path 4. street asphalted, communally used
  2. communal path used to pass by 9. missing
  3. sand street with dead end
36. Perceived danger in immediate environment:
  1. no danger 3. dangerous places in- and outside house
  2. danger outside house 9. missing
37. Presence of toys:
  1. no toys 3. larger, valuable toys
  2. small, invaluable toys 9. missing
38. Number of caretakers:
  1. mother only 4. parent(s) and two other relatives
  2. both parents 5. parent(s) and more than two other relatives
  3. parent(s) and one other relative 9. missing
39. Perceived sex differences:
  0. no opinion 2. distinct sex differences that need differential treatment
  1. no sex differences 9. missing
40. Opinion on divorce:
  0. no opinion 3. not good for the children
  1. not good, nor bad 4. by all means wrong
  2. better than fights 9. missing
41. Reading activities for extra knowledge on caretaking:
  1. no activities 3. very active reader
  2. some activities 9. missing

## Appendix C

### Tasks in the Structured Play Session: Materials and Instructions to Mother, Separately for Each Age Group

Age of child (months)	Tasks	Materials	Instructions <sup>1</sup>
12	1	Cup and spoon	Stirr
	2	Ball	Roll back and forth
	3	Plastic container and 'Smarties'	Put smarties in container
	4	Wooden 'egg' puzzle (4 pieces)	Make puzzle
	5	Puppet, cup and ball	Simple commands like 'Bring the ball'
	6	All kinds of toys	Free play
18	1	Wooden 'egg' puzzle (4 pc.)	Make puzzle
	2	Ball	Roll back and forth
	3	Plastic container and 'Smarties'	Put smarties in container
	4	Square blocks (6)	Build a tower
	5	Picture book	Mother names object, child points to it
	6	All kinds of toys	Free play
24	1	Animal puzzle (15 pieces)	Make puzzle
	2	Ball	Roll back and forth
	3	Square blocks (6)	Build a tower
	4	Picture book	Mother names object, child points to it
	5	Short and long blocks differing in color	Arrange in two piles of short and long blocks
30	1	Animal puzzle (15 pieces)	Make puzzle
	2	Train of DUPLO (4 carriages)	Connect wagons
	3	Blocks of DUPLO (6)	Stack blocks
	4	Picture book	Mother points and child names objects
	5	Short and long blocks differing in color	Arrange in two piles of short and long blocks
36	1	Plastic barrels differing in size (5)	Connect similar sizes and stack them
	2	Wooden blocks differing in color and size	Arrange blocks on color
	3	Train of DUPLO (4 carriages)	Connect carriages
	4	Picture book	Mother points and child names objects
	5	Animal puzzle (15 pieces)	Make puzzle
42	1	Plastic barrels differing in size (5)	Connect similar sizes and stack them
	2	Wooden blocks differing in color and size	Arrange blocks on color
	3	Picture book	Mother points and child names objects
	4	Animal puzzle (15 pieces)	Make puzzle
	5	Hexagonal puzzle (13 pieces)	Fit pieces in empty form
48-59	1	Plastic barrels differing in size (5)	Connect similar sizes and stack them
	2	Flat beads with 1, 2, 3 holes and different colors	Arrange beads on number of holes
	3	Hexagonal puzzle (13 pieces)	Fit pieces in empty form

*table continues*

60-72	4	Hexagonal puzzle (13 pieces)	Fit pieces according to picture 1 (demarcations between pieces are still visible)
	1	Chalk and board	Write A, K, L, M
	2	Flat beads with 3, 4, 5 holes and different colors	Arrange beads on number of holes
	3	Hexagonal puzzle (13 pieces)	Fit pieces according to examples 1-6 (after picture 1 demarcations between pieces are no longer visible)

<sup>1</sup> An Indonesian research assistant read a list of suggested activities to the mother. During reading, she showed the mother the materials for that particular task. The mother was instructed to give the child whatever help she thought appropriate for each task. After all the instructions were read, the assistant asked the mother in the Sundanese language (the local language) whether she had fully understood the information. The assistant explained a task again when it had remained unclear to the mother.

## Appendix D

### Infant/ Toddler-HOME: Internal Consistency of Subscales (Cronbach alpha) and Corrected Item-Total Correlations of Subscale Items

#### I. Emotional and verbal responsivity of mother ( $\alpha = .25$ )

Item	Corrected item-total correlation
01 Mother spontaneously vocalizes to child at least twice during visit (excl. scolding)	.00
02 Mother responds to child's vocalizations with a verbal response	.00
03 Mother tells child the name of some object during visit or says name of person or object in a "teaching" style	.28
04 Mother's speech is distinct, clear, and audible	-.10
05 Mother initiates verbal interchanges with observer-- asks questions, makes spontaneous comments	.29
06 Mother expresses ideas freely and easily and uses statements of appropriate length for conversation (e.g. gives more than brief answers)	-.10
07 Mother permits child occasionally to engage in "messy" types of play	-.22
08 Mother spontaneously praises child's qualities or behavior at least twice during visits	.48 **
09 When speaking of or to child, mother's voice conveys positive feeling	.11
10 Mother caresses or kisses child at least once during visit	-.01
11 Mother shows some positive emotional responses to praise of child offered by visitor	.12

#### II. Avoidance of restriction and punishment / Acceptance ( $\alpha = .32$ )

Item	Corrected item-total correlation
12 Mother does not shout at child during visit	-.05
13 Mother doesn't express overt annoyance with or hostility toward child	.11
14 Mother neither slaps nor spansks child during visit	.07
15 Mother reports that no more than one instance of physical punishment occurred during the past week	.10
16 Mother does not scold or derogate child during visit	.28
17 Mother does not interfere with child's actions or restrict child's movements more than three times during visit	.13
18 At least ten books are present and visible	.34 *
19 Family has a pet	.10

#### III. Organisation of physical and temporal environment ( $\alpha = .45$ )

Item	Corrected item-total correlation
20 When mother is away, care is provided by one of three regular substitutes	.47 **

*table continues*

21	Someone takes child into grocery store at least once a week	.10
22	Child gets out of house at least four times a week	.00
23	Child is taken regularly to doctor's office or clinic	.22
24	Child has a special place in which to keep his toys and "treasures"	.11
25	Child's play environment appears safe and free of hazards	.34 *

#### IV. Provision of appropriate play materials ( $\alpha = .33$ )

Item	Corrected item-total correlation
26	Child has some muscle activity toys or equipment, e.g., ball, blocks .23
27	Child has push or pull toy .28
28	Child has stroller or walker, kiddie car, scooter, or tricycle -.02
29	Mother provides toys or interesting activities for child during interview -.08
30	Provides learning equipment appropriate to age --cuddly toy or role-playing toys .16
31	Provides learning equipment appropriate to age --mobile, table and chairs, high chair, play pen .24
32	Provides eye-hand coordination toys --items to go in and out of receptacle, fit together toys, beads .24
33	Provides eye-hand coordination toys that permit combinations --stacking or nesting toys, blocks, or building toys .15
34	Provides toys for literature or music .09

#### V. Maternal involvement with child ( $\alpha = .33$ )

Item	Corrected item-total correlation	
35	Mother tends to keep child within visual range and to look at him often	.13
36	Mother "talks" to child while doing her work	-.05
37	Mother consciously encourages developmental advances	.19
38	Mother invests "maturing" toys with value via her attention	.32 *
39	Mother structures child's play periods	.11
40	Mother provides toys that challenge child to develop new skills	.19

#### VI. Opportunities for variety in daily stimulation ( $\alpha = .14$ )

Item	Corrected item-total correlation	
41	Father provides some caretaking every day	-.05
42	Mother reads stories at least three times weekly	.10
43	Child eats at least one meal per day with mother & father	.15
44	Family visits or receives visits from relatives	.06
45	Child has three or more books of its own	.07

\*  $p < .05$ , \*\*  $p < .01$ .  $N = 41$ .



## Appendix E

### IT-HOME as adapted by Zeitlin and Satoto (1990): Internal Consistency of Subscales and Corrected Item-Total Correlations of Subscale Items

#### I. Emotional and verbal responsivity ( $\alpha = .53$ )

Item	Corrected item-total correlation
01 Mother spontaneously vocalizes to child at least twice during visit (excl. scolding)	.00
02 Mother responds to child's vocalizations with a verbal response	.00
03 Mother tells child the name of some object during visit or says name of person or object in a "teaching" style	.48 **
08 Mother spontaneously praises child's qualities or behavior at least twice during visits	.53 **
09 When speaking of or to child, mother's voice conveys positive feeling	.16
10 Mother caresses or kisses child at least once during visit	.31
11 Mother shows some positive emotional responses to praise of child offered by visitor	.18

#### II. Acceptance ( $\alpha = .15$ )

Item	Corrected item-total correlation
07 Parent permits child occasionally to engage in "messy" types of play	-.05
12 Parent does not shout at child during visit	.03
13 Parent doesn't express overt annoyance with or hostility toward child	-.03
15 Parent reports that no more than one instance of physical punishment occurred during the past week	.07
16 Parent does not scold or derogate child during visit	.28
17 Parent does not interfere with child's actions or restrict child's movements more than three times during visit	.17

#### III. Social cultural ( $\alpha = .20$ )

Item	Corrected item-total correlation
21 Someone takes child into grocery store at least once a week	.02
22 Child gets out of house at least four times a week	.00
23 Child is taken regularly to doctor's office or clinic	.28
30 Provides learning equipment appropriate to age --cuddly toy or role-playing toys	.01
38 Parent invests "maturing" toys with value via her attention	.01
39 Parent structures child's play periods	.10
42 Parent reads stories at least three times weekly	.17
43 Child eats at least one meal per day with both parents	-.04
44 Family visits or receives visits from relatives	.05

**IV. Play materials ( $\alpha = .43$ )**

Item	Corrected item-total correlation
24 Child has a special place in which to keep his toys and "treasures"	.21
25 Child's play environment appears safe and free of hazards	.17
26 Child has some muscle activity toys or equipment, e.g. ball, blocks	.30
27 Child has push or pull toy	.30
28 Child has stroller or walker, kiddie car, scooter, or tricycle	.07
29 Parent provides toys or interesting activities for child during interview	-.14
31 Provides learning equipment appropriate to age --mobile, table and chairs, high chair, play pen	.21
32 Provides eye-hand coordination toys --items to go in and out of receptacle, fit together toys, beads	.28
40 Parent provides toys that challenge child to develop new skills	.30

**V. Involvement ( $\alpha = -.14$ )**

Item	Corrected item-total correlation
20 Substitute care is provided by one of three regular substitutes	.10
35 Parent tends to keep child within visual range and to look at him often	-.05
36 Parent "talks" to child while doing her work	-.13
37 Parent consciously encourages developmental advances	-.20
41 Father provides some caretaking every day	-.02

\*  $p < .05$ , \*\*  $p < .01$ .  $N = 41$ .

## Appendix F

### EC-HOME: Internal Consistency of Subscales (Cronbach alpha) and Corrected Item-Total Correlations of Subscale Items

#### I. Stimulation through toys, games, and reading materials ( $\alpha = .76$ )

Item	Corrected item-total correlation
01 Toys to learn colors and sizes and shapes--pressouts play school, pegboards, etc.	.36 *
02 Three or more puzzles	.54 **
03 Record player and at least five children's records, c.q. tapes	.54 **
04 Toys or game permitting free expression (finger paints, play dough, crayons or paint and paper, etc.)	.57 **
05 Toys or game necessitating refined movements (paint by number, dot book, paper dolls, crayons and coloring books)	.42 *
06 Toys or game facilitating learning numbers (blocks with numbers, books about numbers, games with numbers, etc.)	.58 **
07 Ten children's books	.46 **
08 At least ten books are present and visible in the house	.14
09 Family buys a newspaper daily and reads it	.29
10 Family subscribes to at least one magazine	.63 **
11 Child is encouraged to learn shapes	.11

#### II. Positive social responsiveness ( $\alpha = .49$ )

Item	Corrected item-total correlation
12 Toys to learn animals---books about animals, circus, games, animal puzzles etc.	.00
13 Child is encouraged to learn the alphabet	.33
14 Parent teaches child some simple manners---to say "please, thank you, I'm sorry"	.00
15 Mother uses correct grammar and pronunciation	.33
16 Parent encourages child to relate experiences or takes time to listen to him relate experiences	.63 **
17 When speaking of or to child, mother's voice conveys positive feeling	.26
18 Child is permitted some choice in lunch or breakfast menu	-.01

#### III. Physical environment: safe, clean and conducive to development ( $\alpha = .28$ )

Item	Corrected item-total correlation
19 Building has no potentially dangerous structural or health defect (plaster coming down from ceiling, stairway with boards missing, rodents etc.)	.19
20 Child's outside play environment appears safe and free of hazards (if no play area available "no")	.27

*table continues*

21	The interior of the apartment is not dark or perceptably monotonous	.38 *
22	Neighbourhood has trees, grass, birds---is esthetically pleasing	.01
23	There is at least 100 square feet of living space per person in the house	.02
24	In terms of available floor space, the rooms are not overcrowded with furniture	-.15
25	All visible rooms of the house are reasonably clean and minimally cluttered	.23

#### IV. Pride, affection, and warmth ( $\alpha = .55$ )

Item		Corrected item-total correlation
26	Parent holds child close ten to fifteen minutes per day, e.g. during tv, story time, visiting	.07
27	Mother converses with child at least twice during visit (scolding and suspicious comments not counted)	.30
28	Mother answers child's questions or requests verbally	.35 *
29	Mother usually responds verbally to child's talking	.32
30	Mother spontaneously praises child's qualities or behavior twice during visit	.39 *
31	Mother caresses, kisses or cuddles child at least once during visit	.33
32	Mother sets up situation that allows child to show off during visit	.33

#### V. Stimulation of academic behavior ( $\alpha = .27$ )

Item	Corrected item-total correlation	
33	Child is encouraged to learn colors	-.08
34	Child is encouraged to learn patterned speech (nursery rhymes, prayers, songs, tv-commercials etc.)	.29
35	Child is encouraged to learn spatial relationships (up, down, under, big, little etc.)	.00
36	Child is encouraged to learn numbers	.27
37	Child is encouraged to learn to read a few words	.21

#### VI. Modeling and encouragement of social maturity ( $\alpha = .56$ )

Item	Corrected item-total correlation	
38	Some delay of food gratification is demanded of the child, e.g. not to whine or demand food unless within half an hour of meal time	.27
39	Family has tv, and it is used judiciously, not left on continuously	.31
40	Mother introduces interviewer to child	.21
41	Child can express negative feelings without harsh reprisal	.41 *
42	Child is permitted to hit parent without harsh reprisal	.45 **

**VII Variety of stimulation ( $\alpha = .33$ )**

Item	Corrected item-total correlation
43 Real or toy musical instrument (piano, drum, etc)	.10
44 Family members have taken child on one outing (picnic, shopping excursion) at least every other week	.42 *
45 Child has been taken by family member on a trip more than 50 miles from his home during the past year (radial distance)	.04
46 Child has been taken by a family member to a scientific, historical, or art museum within the past year	.14
47 Tries to get child to pick up and put away toys after play session---without help	-.03
48 Mother uses complex sentence structure and some long words in conversing	.47 **
49 Child's art work is displayed some place in house	.15
50 Child eats at least one meal per day, on most days, with mother (or -figure) and father (or-figure)	-.13
51 Parent let child choose certain favourite food products or brands at grocery store	.10

**VIII Physical Punishment/ Acceptance ( $\alpha = .26$ )**

Item	Corrected item-total correlation
52 Mother does not scold or derogate child more than once during visit	.29
53 Mother does not use physical restraint, shake, grab, or pinch child during visit	.14
54 Mother neither slaps or spansks child during visit	.00
55 No more than one instance of physical punishment occurred during the past week	.11

\*  $p < .05$ , \*\*  $p < .01$ .  $N = 37$ .

# Appendix G

## Factor analyses on contextual measures per domain and context

Table G-1  
Family structure: Results of three factor analyses for each of the contexts

Immediate Environment (N=80)		Social and Economic Context (N=80)		Cultural Context (N=55)	
Measures	Factor 1 Maturity	Measures	Factor 1 Remarriage	Measures	Factor 1 Traditionality
Number of children	.90	Number of remarriages		Preference for more children	.62
Age of mother	.90	- Mother	.82	Differences in child rearing of boys and girls	.75
Age of father	.89	- Father	.88	Preference for living in nuclear family form	.52
Size of household	.54	Extendedness	.03		
		Size of family of origin:			
		- Mother's side	-.11		
		- Father's side	-.51		
Eigenvalue	2.71				
Explained variance (%)	67.83		35.10		40.64
			1.75		1.22
			22.02		



Table G-2  
Education: Results of three factor analyses for each of the contexts

Immediate Environment (N=80)		Social and Economic Context (N=80)		Cultural Context (N=55)		
Measures	Factor 1 Family education level	Measures	Factor 1 Relatives education level	Measures	Factor 1 Educational aspirations	Factor 2 Religious education
Education level		Education level		Preference for preschool	.83	-.11
- Mother	.92	- Parents of mother	.54	High school aspirations	.84	.13
- Father	.90	- Parents of father	.72	Preference for religious education	.01	.99
Number of children attending preschool	.57	- Siblings of mother	.61			
		- Siblings of father	.71			
Eigenvalue	1.97		1.69		1.41	1.01
Explained variance (%)	65.71		42.20		46.92	33.71

Table G-3  
Wealth: Results of three factor analyses for each of the contexts

Immediate Environment (N=80)		Social and Economic Context (N=80)		Cultural Context (N=55)	
Measures	Factor 1 Physical wealth	Measures	Factor 1 Economic wealth	Measures	Factor 1 Child-centered festivities
Consumer goods	.87	Amount of income	.80	Outdoor activities	.86
Quality of housing	.87	Occupational status		Birthday of children	
Living space per person	.78	- Mother	.61	- Remembered	.80
Safety of the physical env.	.72	- Father	.79	- Celebrated	.88
Provision of play materials	.47				
Eigenvalue	2.86		1.63		2.15
Explained variance (%)	57.24		54.51		71.63

Table G-4  
Health: Results of three factor analyses for each of the contexts

Measures	Immediate Environment (N=80)		Social and Economic Context (N=80)		Cultural Context (N=55)	
	Factor 1 Health problems	Factor 2 Nutrition	Measures	Factor 1 Preventive health activities	Measures	Factor 1 Preventive health attitudes
Prevalence of health problems	.92	.01	Number of children vaccinated	.78	Preference for prenatal care	.85
Actuality of health problems	.90	-.10	Presence of a bathroom	.73	Preference for professional midwife	.85
Nutritional status of children	.26	.77	Use of contraceptives	.53		
Expenditures						
- Protein-rich food	-.08	.54				
- Basic needs	.29	-.50				
Eigenvalue	1.81	1.13		1.42		1.45
Explained variance (%)	36.32	22.74		47.30		72.72

Table G-5  
Residential mobility: Results of two factor analyses for the immediate environment  
and the social and economic context

Immediate Environment (N=80)		Social and Economic Context (N=80)	
Measures	Factor 1 Mobility of the family	Measures	Factor 1 Urban origin Factor 2 Origin of father
Number of times moved	.82	Urban vs. rural origin	.87
Distance from relatives	.76	Distance to place of birth	
Length of time in earlier place of residence	-.62	- Mother	-.62
		- Father	.89
Eigenvalue	1.64		1.12
Explained variance (%)	54.51		37.62

# Glossary

## Indonesian-English

Adat	customary law or norms
Anak kos	literally a child who is eating together with the household members. Temporary student living in the household
Arisan	a kind of lottery in a group of people who contribute money in an equal amount. With a rotating system, each member of the group will eventually get the lot
BALITA	Bawah Lima Tahun - children below the age of five years
Batik	printed cotton in certain traditional patterns
Bidan	trained midwife
Jajan	Snack
Jamu	herbal medicine
Gairah	Passion, happiness
Kabupaten	district
Kader	voluntary (health) worker(s) at local level
Kampung	typical Indonesian neighborhood
Kangkung	kind of wild spinach
Kecapi	Sundanese string instrument
Kelurahan	sub-district or village
Krupuk	fried snack
Madrasah	Islamic school
Main	play, playful, drop by for a visit
Minyak kayu putih	medicinal oil rubbed on various places of the body for warming up
Nakal	naughty
Pamali (Sundanese)	prohibitions with regard to all kinds of activities
Pantang (Sundanese)	rules with regard to abstinence
Paraji	traditional healer, traditional birth attendant in West Java
Parit	canal
Pasar	market
Pembantu	house servant
POSYANDU	Pos Pelayanan Terpadu - integrated health and family planning service unit
PUSKESMAS	Pusat Kesehatan Masyarakat - public health centre operating at sub-district or village level
Rezeki	luck, fortune, destiny, blessing (of God)
RT	Rukun Tetangga - neighborhood
RW	Rukun Warga - hamlet
Sawah	rice-fields
Slendang	shawl or stole worn over one's shoulder or diagonally across the body to carry something or somebody (i.e., young child)
SMP	Sekolah Menengah Pertama - Junior High School
SMA	Sekolah Menengah Atas - Senior High School
Tahu	soybean curd
Tempeh	fermented soybean cake
Tikar	a plaited mat
Warung	small shop, stall, kiosk
Warung makan	food stall
Wayang	puppet used for theatre in puppet show

## Summary

Attachment security of Indonesian children, the quality of support that their mothers provide to them, and the Indonesian parenting context are central topics of the present thesis. The present thesis investigates whether two key assumptions of attachment theory are supported in an Indonesian sample: the universality of attachment development and the relation between attachment security and the quality of parental care. It, furthermore, investigates the broader parenting context in which attachment development occurs. From a methodological perspective, the present study is characterized by intracultural comparisons and a combination of research methods from developmental psychology and social anthropology.

The thesis consists of an introductory, empirical and concluding section. The introductory section of the thesis contains three chapters. The first chapter explains the three central topics of the present thesis: attachment security, the quality of maternal support, and the parenting context. It also introduces two concepts --culture and adaptation-- that need to be clarified in a research project that combines methods of the two disciplines of psychology and anthropology. In addition, it introduces a conceptual model for the investigation of contextual characteristics in relation to parental behavior and child development.

The second chapter provides a general description of the ethnographic background of parenting in Indonesia. The information on population density reveals that the campaign of the Indonesian government on reducing family size has been reasonable successful. The description of the general living condition in crowded kampungs shows that daily life is full of activities outside the home. The education system in Indonesia has grown considerably in the past decennia with an almost universal attendance rate of both males and females to primary education but a relatively high drop out rate of children ten years and older (54.5% in 1985). The similar growth of the primary health care system has ensured many Indonesian families of the possibility to get cheap health care and to attend community health services for preventive health measures such as vaccinations of their young children or information about nutrition. The chapter ends with a description of marriage patterns, customs, and the parent's role of the Sundanese-Indonesians who are the ethnic group central in this study.

The third chapter in the introductory section of the thesis introduces the research methods and instruments that were employed during the fieldwork in Indonesia. It contains general information about the research methodology and specific information about the methods used to assess the parenting context, the quality of support an Indonesian mother provides to her child, the quality of the home environment, and the child's attachment security.

The empirical section of the thesis consists of four chapters. Each empirical chapter is followed by an interlude that presents case material in relation to the topics of the preceding chapter. In the first empirical chapter (Chapter 4), the caregiving context is structured with the aid of an adapted version of Bronfenbrenner's ecological model.



The model distinguishes between three contexts (the immediate environment, the social and economic context, the cultural context) and five domains (family structure, education, wealth, health, residential mobility). Variables have been constructed to describe components of children's immediate environment, their social and economic circumstances, and their parents' caregiving values and beliefs within each of the five domains. An investigation of the interrelatedness of the constructed variables within the domains has shown that the domains of education, wealth, and health represented strongly interrelated dimensions of the Indonesian context of parenting whereas this was not the case for variables in the domains of family structure and residential mobility. It appears that domains like family structure are inherently more heterogeneous and multidimensional than domains like education and wealth. An investigation of relations across domains has revealed that education, wealth, and cultural context variables from all domains form one major dimension of the Indonesian context of parenting that not only embraces aspects of the commonly used SES-construct (level of education, income) but also values and beliefs underlying parenting in all domains. This major dimension was called 'social climbing'. Variables in the domains of family structure, health, and residential mobility formed four other dimensions of the Indonesian context of parenting representing settledness of the family, religiousness and extendedness, marriage and health problems, and nutritional intake of urban families.

This chapter also comprises an intracultural comparison of the parenting context between families from two socio-economically different communities: Loompoor and Sheraton. The families in the two communities have been found to differ with respect to most of the contextual variables in the five domains. A general conclusion is that there are more sources of stress for low SES parents living in Loompoor than for low-middle SES parents in Sheraton.

In the second chapter of the empirical section (Chapter 5), the caregiving context is related to the quality of parenting that Indonesian mothers provide to their children in two different settings: at home and during a structured play session in a standardized setting outside the home. The quality of maternal support has indeed been found to be related to the parenting context. Mothers' supportive behavior was especially related to contextual variables in the domains of education, wealth, and health. The conditions of being higher educated, more wealthy, and more health-oriented appear to be favorable in that these conditions were associated with the provision of higher quality support by Indonesian mothers to their children. Some differences between the home setting and the structured play setting have been found that underline the assumption that parents placed in more favorable conditions will be able to provide better quality support. With regard to the variable of physical wealth, for instance, the differences in the quality of support provided by mothers living in a relatively rich environment and the mothers living in a relatively poor environment simply disappeared when they were observed in the structured play session outside their home. Physical wealth was positively related to the quality of maternal support at home but not in the structured play session.

The relative contribution of more proximal variables in the immediate environment versus more distal variables in the other contexts to the quality of maternal support has been investigated. From this, it became clear that variables in the immediate

environment explained a significant part of interindividual differences in the quality of support provided by Indonesian mothers. Variables at the other contextual levels did not add to this prediction. Family education level and maturity of the family as assessed in the immediate environment were found to significantly contribute to the quality of maternal support. In the present study, no conclusions can be drawn about the direction of the effects.

The third empirical chapter (Chapter 6) includes a more detailed investigation of the immediate environment of Indonesian children with another instrument (the HOME), measuring the quality of the home. The quality of the home was found to be similarly related to the quality of support provided by the mother, although this relation appeared to be stronger for preschoolers than for infants and toddlers. Most of the differences in the qualitative aspects of the immediate environment were found to be related to differences in socio-economic status of the family in which the child lives and not to differences in the child's gender and age.

The fourth empirical chapter (Chapter 7) relates attachment security of the child to the quality of maternal support and to characteristics of the caregiving context. In our Indonesian sample the proportion of secure versus insecure and the proportion of insecure-disorganized attachment versus other attachment qualities was found to be comparable to those found in other cultures. The proportion of insecure-avoidant and insecure-resistant attachment classifications, however, deviated significantly from the global distribution but was nevertheless comparable to the distribution in the Japanese samples. This finding indicates that the development of an attachment relationship appears to be a universal biological phenomenon, in line with one of Bowlby's key assumptions. It also indicates that the quality of maternal care --that was found to be related to attachment security-- may be associated with culture-specific aspects in the caregiving context in case of insecure-avoidant and insecure-resistant attachment relationships.

A more direct investigation of the relation between attachment security, the quality of parental support, and characteristics of the parenting context indeed showed that contextual characteristics did not differentiate mother-child dyads with secure attachment relationships from dyads with insecure attachment relationships. The context of the children in the three insecure attachment groups, however, differed significantly. Resistant children were more often found in families with a lower education level, lived in a poorer physical environment, and had parents who were less involved with preventive health care than children with other attachment classifications. In contrast to resistant children, disorganized children were more often found in extended families and in families more active in preventive health care. Avoidant children lived in families that were less inclined towards child-centered festivities than other families. Apparently, mothers with secure children provide their children with a high quality of care irrespective of contextual circumstances whereas the development of different forms of insecure attachment relationships appears to be rather context-sensitive.

The concluding chapter of the thesis (Chapter 8) presents the main empirical findings and conclusions, relates the concepts of culture and adaptation to the present

research findings, discusses the reliability and the validity of the methods used in the present research, and finally focuses on generalization of the findings, the scientific and practical relevance of the present study, and issues unanswered by the present research. Although generalizations from the present sample can only be made tentatively, the Indonesian interplay between attachment security, the quality of maternal support, and contextual characteristics appears to involve both universal psychological processes and context-sensitive mechanisms. The present combination of anthropological and psychological research methods has been an inspiring and promising enterprise to study attachment 'in context'.

## Ringkasan

### 'Attachment' di Indonesia: Hubungan antara ibu, anak, dan lingkungan pengasuhannya

Keamanan ikatan emosional ('attachment security') antara orang-tua dan anak, kualitas sokongan dari ibu, dan lingkungan pengasuhan di Indonesia merupakan tiga pokok yang terpenting di dalam penelitian ini. Tesis ini meneliti apakah dua asumsi dari teori 'attachment' didukung di sampel penelitian dari Indonesia: universalitas perkembangan ikatan emosional dan relasi antara keamanan ikatan emosional dan kualitas sokongan dari ibu. Selain itu, tesis ini menyelidiki hubungan antara lingkungan pengasuhan dan perkembangan ikatan emosional. Dari sudut metodologis, sifat-sifat penelitian ini adalah pertama perbandingan di dalam satu kebudayaan ('intracultural investigation') dan kedua kombinasi metoda-metoda riset dari psikologi perkembangan dan antropologi sosial.

Tesis ini terdiri dari bagian introduksi, bagian empiris, dan bagian penutup. Bagian introduksi terdiri dari tiga bab. Bab pertama menjelaskan tiga pokok yang terpenting di tesis ini: keamanan ikatan emosional, kualitas sokongan ibu dan lingkungan pengasuhan. Dua pengertian juga dipernalkan --kebudayaan dan adaptasi-- karena pengertian ini penting di dalam riset yang menggabungkan metoda dari psikologi dan antropologi. Disamping itu, bab ini mempernalkan suatu model untuk meneliti sifat-sifat dari lingkungan pengasuhan yang bertalian dengan tingkah laku orang-tua dan perkembangan anaknya.

Bab kedua memberi gambaran umum mengenai latar-belakang etnografis di lingkungan pengasuhan di Indonesia. Informasi tentang padatan populasi menunjuk bahwa kebijaksanaan dari pemerintah Indonesia mengenai keluarga berencana cukup berhasil. Deskripsi keadaan lingkungan umum di kampung yang padat menjelaskan bahwa kehidupan sehari-hari penuh kegiatan di luar rumah. Sistem pendidikan di Indonesia sangat menumbuh di dasawarsa-dasawarsa terakhir sampai hampir semua anak lelaki dan anak perempuan masuk SD tetapi juga tampak bahwa cukup banyak anak berumur sepuluh tahun atau lebih keluar sekolah sebelum lulus (54.5% di tahun 1985). Pembangunan Kesehatan Masyarakat Desa (PKMD) menumbuh dengan kecepatan yang sama dan memberi banyak keluarga-keluarga Indonesia kesempatan untuk menerima pelayanan kesehatan yang murah dan mengikut POSYANDU yang tugasnya misalnya diberi tindakan pencegahan di bidang kesehatan anak atau pengetahuan mengenai ilmu gizi. Bab ini selesai dengan gambaran pola pernikahan, adat dan peran orang-tua buat orang Sunda --suku bangsa Indonesia yang terutama diteliti di penelitian ini.

Bab ketiga di bagian introduksi memperkenalkan metoda-metoda riset dan alat-alat yang dipergunakan dalam penelitian di Indonesia. Bab ini berisi dengan informasi umum mengenai metodologi riset dan informasi khas mengenai metoda untuk menilai lingkungan pengasuhan, kualitas sokongan dari ibu buat anaknya, kualitas lingkungan rumah, dan perasaan aman bagi si anak dari ikatan emosional dengan pengasuhnya.

Bagian empiris di tesis ini terdiri dari empat bab. Setiap bab diikuti oleh sesuatu 'interlude' yang menggambarkan kasus-kasus bertalian dengan pokok dari bab

sebelumnya. Di bab empiris pertama (Bab 4), lingkungan pengasuhan disusun dengan bantuan model ekologis dari Bronfenbrenner. Model ini membedakan antara tiga lingkungan (lingkungan dekat, lingkungan sosial dan ekonomis, lingkungan kebudayaan) dan lima bidang (struktur keluarga, pendidikan, kekayaan, kesehatan, mobilitas kediaman). Faktor-faktor dibuat untuk menggambarkan aspek-aspek dari lingkungan dekat anaknya, keadaannya sosial dan ekonomi, dan nilai pengasuhan dari orang-tuanya dalam setiap bidang. Hasil mengenai hubungan timbal-balik faktor-faktor dalam setiap bidang menunjuk bahwa dalam bidang-bidang pendidikan, kekayaan, dan kesehatan faktor saling berhubungan dengan kuat dan merupakan dimensi tersendiri di lingkungan pengasuhan di Indonesia sedangkan faktor-faktor di bidang-bidang struktur keluarga dan mobilitas kediaman kurang saling berhubungan. Kelihatannya bidang seperti struktur keluarga lebih heterogen dibandingkan dengan bidang pendidikan atau kekayaan. Penyelidikan hubungan-hubungan antara semua faktor menunjukkan bahwa faktor-faktor di bidang pendidikan dan kekayaan bersama dengan semua faktor di lingkungan kebudayaan dari bidang lain merupakan satu dimensi besar di lingkungan pengasuhan Indonesia. Selain terdiri dari aspek di gagasan 'SES' ('SocioEconomic Status') dimensi ini juga terdiri dari nilai dan pendapatan mengenai pengasuhan di setiap bidang. Dimensi besar ini dipanggil 'social climbing'. Faktor-faktor di bidang-bidang struktur keluarga, kesehatan dan mobilitas kediaman merupakan empat dimensi lain di lingkungan pengasuhan Indonesia mengenai pendirian keluarganya; keagamaan dan kekeluargaan besar; masalah-masalah pernikahan dan kesehatan; dan status bergizi di keluarga yang berasal dari kota.

Bab ini juga terdiri dari perbandingan lingkungan pengasuhan di dalam satu kebudayaan: dua kelompok keluarga-keluarga dari dua kampung yang berbeda di golongan ekonomis. Hasil penyelidikan ini menunjukkan bahwa keluarga-keluarga dari dua kampung ini ('Loompoor' dan 'Sheraton') berbeda berkenaan dengan kebanyakan faktor-faktor di lima bidang. Kesimpulan umum ialah orang-tua dari golongan karyawan (di Loompoor) menghadapi lebih banyak persoalan yang ketegangan dibandingkan orang-tua dari golongan dibawah sedang ('low-middle SES') yang tinggal di Sheraton.

Di bab kedua dari bagian empiris (Bab 5) hubungan antara lingkungan pengasuhan dan kualitas sokongan dari ibu-ibu Indonesia bagi anaknya diteliti di dalam dua situasi: di rumah dan sedang bermain di suatu sidang yang distandardisasikan. Kualitas sokongan dari ibu memang berhubungan dengan lingkungan pengasuhannya. Sokongan ibu terutama bertalian dengan faktor-faktor dari bidang pendidikan, kekayaan dan kesehatan. Tingkat pendidikan yang agak tinggi dan orientasi terhadap kesehatan adalah kondisi yang kelihatan menguntungkan anak-anak karena kondisi ini berhubungan dengan ibu memberikan kualitas sokongan yang lebih tinggi kepada anaknya. Beberapa perbedaan antara situasi di rumah dan di sidang luar rumah menekankan anggapan bahwa orang-tua di dalam kondisi yang lebih beruntung akan memberi sokongan yang kualitasnya lebih tinggi. Misalnya, hasil mengenai faktor kekayaan di lingkungan dekat menunjukkan bahwa perbedaan di kualitas sokongan antara ibu yang tinggal di lingkungan kaya dan ibu yang tinggal di lingkungan miskin tidak kelihatan lagi jika ibu-ibu ditinjau di sidang yang distandardisasi. Kekayaan di lingkungan dekat berhubungan positif dengan kualitas sokongan ibu di rumah tetapi tidak di sidang yang teratur dan sama untuk semua ibu.

Pengaruh dari faktor-faktor di lingkungan dekat dibandingkan dengan pengaruh dari faktor-faktor di lingkungan yang lebih jauh terhadap kualitas sokongan ibu. Hasil-hasil ini menunjukkan bahwa faktor-faktor di lingkungan dekat menjelaskan bagian besar dari perbedaan kualitas sokongan antara ibu-ibu. Faktor-faktor di lingkungan lain tidak menambah kemungkinan meramalkan kualitas sokongan ibu. Tingkat pendidikan dan usia keluarganya --faktor dari lingkungan dekat-- adalah faktor yang menjelaskan bagian yang berarti ('significant') dari kualitas sokongan ibu. Dari penelitian ini, kesimpulan mengenai arah pengaruhnya tidak bisa ditarik.

Bab empiris ketiga (Bab 6) terdiri dari penelitian lebih terperinci mengenai lingkungan dekat anak Indonesia dengan alat riset yang lain ('HOME') yang mengukur kualitas di rumah. Hasil-hasil ini menunjukkan bahwa kualitas di rumah juga berhubungan dengan kualitas sokongan yang diberi oleh ibu, walaupun hubungan ini lebih kuat bagi anak prasekolah dibandingkan anak bayi dan anak kecil ('toddlers'). Kebanyakan perbedaan di kualitas rumah berkaitan dengan perbedaan SES dan tidak dengan perbedaan umur anak atau kelamin anak.

Bab empiris keempat (Bab 7) mengkaitkan keamanan ikatan emosional anak dengan kualitas sokongan ibu dan faktor-faktor di lingkungan pengasuhannya. Di Indonesia, perimbangan antara jumlah anak yang aman melawan yang tidak aman dan perimbangan antara jumlah anak yang 'insecure-disorganized' melawan anak lain sama dengan perimbangan dari masyarakat lain. Bagian anak yang 'insecure-avoidant' dan bagian anak yang 'insecure-resistant' lain dibandingkan perimbangan umum, tetapi kelihatan sama dengan perimbangan yang diketemukan di Jepang. Hasil ini menunjuk bahwa perkembangan ikatan emosional adalah soal biologis dan universal, sejalan dengan asumsi pokok dari Bowlby. Hasil ini juga menunjuk bahwa kualitas sokongan ibu --yang berhubungan dengan keamanan ikatan emosional-- barangkali berkaitan dengan aspek dari lingkungan pengasuhan yang khas buat kebudayaannya andaikata anak mempunyai ikatan emosional yang 'insecure-avoidant' atau 'insecure-resistant'.

Hubungan antara keamanan ikatan emosional, kualitas sokongan ibu dan faktor-faktor di lingkungan pengasuhan diteliti secara langsung. Hasil ini menunjukkan bahwa faktor-faktor di lingkungan memang tidak membedakan antara relasi anak-ibu yang aman melawan relasi anak-ibu yang tidak aman. Tetapi, lingkungan pengasuhan di tiga golongan anak-ibu yang tidak mempunyai relasi yang aman berbeda dengan berarti. Anak yang 'insecure-resistant' terutama di keluarga dengan tingkat pendidikan yang lebih rendah, berhidup di lingkungan dekat yang lebih miskin dan mempunyai orang-tua yang kurang tertarik metoda yang mencegah penyakit dibandingkan anak dengan ikatan emosional kualitasnya lain. Dibandingkan dengan anak yang 'insecure-resistant', anak yang insecure-disorganized lebih sering tinggal di keluarga besar (melawan keluarga inti) dan di keluarga yang lebih aktif di bidang pencegahan penyakit. Anak yang 'insecure-avoidant' tinggal di keluarga yang kurang punya cenderung untuk mengorganisasi pesta-pesta anak dibandingkan keluarga lain. Kelihatannya, ibu-ibu dengan anak yang aman memberi anaknya kualitas pengasuhan yang cukup tinggi terlepas keadaan lingkungannya. Perkembangan macam-macam ikatan emosional yang tidak aman kelihatan lebih dikaitkan dengan lingkungannya.

Bagian terakhir tesis ini terdiri dari satu bab (Bab 8). Bab ini menyajikan hasil



empiris pokok dan kesimpulannya, berhubung pengertian kebudayaan dan adaptasi dengan hasil dari penelitian ini, berdiskusi 'reliability' dan 'validity' dari metoda-metoda yang dipakai, dan memusatkan perhatian ke persoalan generalisasi, penggunaannya ilmiah dan praktis, dan soal yang tidak dijawab di penelitian ini. Walaupun generalisasi dari penelitian ini cuma sementara, pengaruh-mempengaruhi antara keamanan ikatan emosional, kualitas sokongan ibu dan faktor-faktor dari lingkungan kayanya sekaligus meliputi proses universal dan mekanisme khas lingkungannya. Kombinasi metoda-metoda dari antropologi dan psikologi adalah suatu perusahaan yang bersemangat dan memberi harapan untuk menyelidiki 'attachment in context'.



# Samenvatting

## Gehechtheid in Indonesië: De moeder-kind relatie in context

Veiligheid van de gehechtheidsrelatie van Indonesische kinderen, de kwaliteit van ondersteuning die de moeders hen verschaffen en de Indonesische opvoedingsomgeving zijn de drie hoofdonderwerpen van dit proefschrift. Onderzocht is de geldigheid van de twee volgende basisassumpties van de hechtingstheorie voor een Indonesische onderzoeksgroep: de universaliteit van gehechtheidsontwikkeling en de relatie tussen veiligheid van de gehechtheidsrelatie en de kwaliteit van ouderlijke zorg. Tevens is onderzoek gedaan naar de opvoedingsomgeving waarin de gehechtheidsrelatie zich ontwikkelt. Vanuit een methodologisch perspectief wordt deze studie gekarakteriseerd door intraculturele vergelijkingen en een combinatie van sociaal-anthropologische en ontwikkelingspsychologische onderzoeksmethoden.

Het proefschrift bestaat uit een inleidende, empirische en afsluitende sectie. De inleidende sectie van het proefschrift bevat drie hoofdstukken. Het eerste hoofdstuk bespreekt de drie centrale thema's: veiligheid van de gehechtheidsrelatie, de kwaliteit van moederlijke ondersteuning en de opvoedingsomgeving. Het introduceert ook twee concepten --cultuur en aanpassing-- die dienen te worden opgehelderd in een onderzoeksproject dat onderzoeksmethoden uit de psychologie en antropologie combineert. Daarnaast introduceert het hoofdstuk een conceptueel model dat gebruikt wordt bij het bestuderen van omgevingskenmerken in relatie tot ouderlijk gedrag en de ontwikkeling van het kind.

Het tweede hoofdstuk geeft een algemene beschrijving van de etnografische achtergrond van opvoeden in Indonesië. De informatie over bevolkingsdichtheid laat zien dat de campagne van de Indonesische overheid om gezinsgrootte te verkleinen redelijk succesvol is verlopen. De beschrijving van de algemene levensomstandigheden in de overbevolkte kampungs geeft weer dat veel van de dagelijks activiteiten zich buiten afspelen. Het Indonesische onderwijssysteem is de laatste decennia aanzienlijk gegroeid waarbij vrijwel alle jongens en meisjes de lagere school bezoeken maar er een relatief grote uitval is bij kinderen van tien jaar en ouder (54.5% in 1985). Eenzelfde groeitrend in de eerstelijns gezondheidszorg heeft veel Indonesische gezinnen de gelegenheid gegeven om goedkope gezondheidszorg te verkrijgen en om gebruik te maken van preventieve gezondheidsvoorzieningen op lokaal niveau zoals inenting voor hun jonge kinderen of informatie over gezonde voeding. Het hoofdstuk richt zich tenslotte op de Sundanees-Indonesische bevolkingsgroep --de etnische groep die centraal staat in deze studie-- en beschrijft hun huwelijkspatronen, opvoedings-gewoonten en de rol die ouders spelen binnen het gezin.

Het derde hoofdstuk van de inleidende sectie introduceert de onderzoeksmethoden en instrumenten die gebruikt zijn tijdens het veldwerk in Indonesië. Het bevat algemene informatie over de onderzoeksmethodologie en specifieke informatie over de methoden ter bepaling van kenmerken van de opvoedingsomgeving, de kwaliteit van ondersteuning die een Indonesische moeder aan haar kind verschaft, de kwaliteit van de thuisomgeving en de veiligheid van de gehechtheidsrelatie tussen moeder en kind.

Het empirische gedeelte van het proefschrift bestaat uit vier hoofdstukken. Elk empirisch hoofdstuk wordt gevolgd door een 'tussenspel' waarin gevalsbeschrijvingen zijn opgenomen die in relatie staan tot de onderwerpen van het voorafgaande hoofdstuk. In het eerste empirische hoofdstuk (hoofdstuk 4) wordt de opvoedingsomgeving gestructureerd met behulp van een aangepaste versie van het ecologische model van Bronfenbrenner. Het model maakt onderscheid tussen drie omgevingen (de nabije omgeving, de sociale en economische omgeving en de culturele omgeving) en vijf domeinen (gezinsstructuur, onderwijs, welvarendheid, gezondheid en residentiële mobiliteit). Binnen elk van de vijf domeinen zijn variabelen samengesteld die aspecten van de nabije omgeving, de sociale en economische omstandigheden en de opvoedingswaarden en -opvattingen van de ouders van de Indonesische kinderen beschrijven. Vervolgens is gekeken naar de onderlinge gerelateerdheid van de samengestelde variabelen binnen elk van de domeinen. De gegevens laten zien dat de variabelen binnen de domeinen van onderwijs, welvarendheid en gezondheid sterk gerelateerde dimensies van de Indonesische opvoedingsomgeving representeren terwijl dit niet het geval blijkt te zijn voor variabelen in de domeinen van gezinsstructuur en residentiële mobiliteit. Het lijkt erop dat domeinen als gezinsstructuur meer heterogeen en multidimensioneel van aard zijn dan domeinen als onderwijs en welvarendheid. Met betrekking tot de relaties tussen domeinen is gevonden dat alle variabelen in de domeinen van onderwijs en welvarendheid en alle variabelen in de culturele omgeving van de overige domeinen samen één hoofddimensie van de Indonesische opvoedingsomgeving vormen. Deze hoofddimensie --die 'sociaal stijgend' is genoemd-- bleek niet alleen de belangrijkste aspecten van het veel gebruikte SES construct (opleiding, inkomen) te bevatten maar ook een breed scala aan opvoedingswaarden en -opvattingen. De overige variabelen in de domeinen van gezinsstructuur, gezondheid en residentiële mobiliteit bleken vier andere dimensies van de Indonesische opvoedingsomgeving te vormen: mate van gevestigd zijn, godsdienstigheid en uitgebreidheid van de gezinsstructuur, huwelijks- en gezondheidsproblemen, en voedingsgewoonten in gezinnen van stedelijke origine.

Dit hoofdstuk bevat tevens een intraculturele vergelijking van de opvoedingsomgeving in gezinnen afkomstig uit twee sociaal-economisch verschillende gemeenschappen: Loompoor en Sheraton. De gezinnen in de twee gemeenschappen bleken significant van elkaar te verschillen met betrekking tot de meeste omgevingsvariabelen in de vijf domeinen. Een algemene conclusie is dat er meer bronnen van stress zijn voor ouders met een lage sociaal-economische status (woonachtig in Loompoor) dan ouders met een laag-midden sociaal-economische status die wonen in Sheraton.

In het tweede hoofdstuk van het empirische gedeelte (hoofdstuk 5) is de opvoedingsomgeving gerelateerd aan de kwaliteit van ondersteuning die Indonesische moeders aan hun kinderen verschaffen in twee verschillende situaties: thuis en in een gestructureerde spel situatie in een gestandaardiseerde setting. De resultaten laten zien dat de kwaliteit van moederlijke ondersteuning inderdaad sterk gerelateerd is aan variabelen in de opvoedingsomgeving. Het ondersteunend gedrag van de moeders is met name gerelateerd aan omgevingsvariabelen in de domeinen van onderwijs,

welvarendheid en gezondheid. De condities van hoger opgeleid, meer welvarend en meer gezondheidsgericht lijken gunstig te zijn gezien hun associatie met een hogere kwaliteit van ondersteuning door Indonesische moeders aan hun kinderen. Een aantal verschillen tussen de thuissituatie en de gestructureerde spel situatie zijn gevonden die de assumptie onderstrepen dat ouders die in meer gunstige omstandigheden leven beter in staat zijn om het kind een hogere kwaliteit van ondersteuning te bieden. Met betrekking tot de variabele welvarendheid in de nabije omgeving, bijvoorbeeld, vond ik geen verschillen in de kwaliteit van ondersteuning tussen moeders die in relatief grotere fysieke welvaart leven en moeders die in relatief armere omstandigheden leven wanneer zij werden geobserveerd tijdens de gestructureerde spel situatie. Welvarendheid in de nabije omgeving bleek echter wel positief gerelateerd te zijn aan de kwaliteit van ondersteuning die de moeders het kind thuis boden.

Tevens is de relatieve bijdrage onderzocht van de meer proximale variabelen in de nabije omgeving en de meer veraf gelegen variabelen uit de andere omgevingen aan de kwaliteit van moederlijke ondersteuning. Hieruit is naar voren gekomen dat de variabelen uit de nabije omgeving een significant deel van de interindividuele verschillen in de kwaliteit van ondersteuning voorspelden. De variabelen in de meer veraf gelegen omgevingen voegden niets toe aan deze voorspelling. Twee variabelen uit de nabije omgeving bleken significant bij te dragen aan de kwaliteit van ondersteuning die Indonesische moeders hun kinderen bieden: onderwijsniveau van gezinsleden en volwassenheid van het gezin. In deze studie kunnen geen conclusies worden getrokken over de richting van de effecten.

Het derde empirische hoofdstuk (hoofdstuk 6) bevat een meer gedetailleerde studie naar de nabije omgeving van Indonesische kinderen met behulp van een ander instrument (de HOME) dat de kwaliteit van de thuissituatie meet. De resultaten van dit hoofdstuk wijzen in dezelfde richting als die van het voorafgaande hoofdstuk. De aldus gemeten kwaliteit van de thuisomgeving bleek eveneens gerelateerd te zijn aan de kwaliteit van ondersteuning door de moeder. Deze relatie is sterker voor kleuters dan voor baby's en peuters. De meeste verschillen in de kwalitatieve aspecten van de nabije omgeving bleken gerelateerd te zijn aan verschillen in sociaal-economische status van het gezin waarin het kind leeft en niet aan verschillen in de sexe en leeftijd van het kind.

Het vierde empirische hoofdstuk (hoofdstuk 7) relateert de veiligheid van de gehechtheidsrelatie van het kind aan de kwaliteit van moederlijke ondersteuning en kenmerken van de opvoedingsomgeving. In de huidige Indonesische onderzoeksgroep bleek de verhouding van veilige versus onveilige gehechtheid en van onveilig-gedesorganiseerde gehechtheid versus andere gehechtheidskwaliteiten vergelijkbaar te zijn met de verhoudingen zoals die in andere culturen zijn gevonden. De verhouding tussen onveilig-vermijdende en onveilig-afwerende gehechtheidsclassificaties verschilde echter significant van de globale verdeling maar was wel vergelijkbaar met de verdeling in Japanse onderzoeksgroepen. Deze resultaten wijzen erop dat de ontwikkeling van een gehechtheidsrelatie een universeel biologisch fenomeen lijkt te zijn, geheel in lijn met een van Bowlby's basisassumpties. De gegevens ondersteunen tevens de basisassumptie dat de kwaliteit van moederlijke zorg gerelateerd is aan veiligheid van de gehechtheidsrelatie. In het geval van onveilig-vermijdende en onveilig-afwerende gehechtheidsrelaties lijkt de kwaliteit van moederlijke zorg geassocieerd te zijn met

cultureel-specifieke aspecten van de opvoedingsomgeving.

Wat betreft omgevingskenmerken bleek er inderdaad geen onderscheid te zijn tussen moeder-kind dyades met een veilige gehechtheidsrelatie en dyades met een onveilige gehechtheidsrelatie. De omgeving van de kinderen in de drie onveilige gehechtheidsgroepen verschilde daarentegen wel significant. Afwerend gehechte kinderen werden vaker gevonden in gezinnen met een lager onderwijsniveau en in een fysiek armere omgeving en bleken ouders te hebben die zich minder bezighielden met preventieve gezondheid dan kinderen met andere gehechtheidsclassificaties. In tegenstelling tot afwerend gehechte kinderen werden gedesorganiseerde kinderen vaker gevonden in gezinnen met een uitgebreide gezinsstructuur ('extended families') en in gezinnen die actiever zijn met betrekking tot preventieve gezondheidszorg. Vermijdend gehechte kinderen werden vooral gevonden in gezinnen die minder geneigd zijn om te investeren in kindgerichte feestelijkheden dan andere gezinnen. In dit onderzoek is gebleken dat moeders met veilig gehechte kinderen in staat te zijn om hun kinderen een hoge kwaliteit van zorg te geven ongeacht de omstandigheden waarin ze leven. Welke type onveilige gehechtheidsrelatie zich ontwikkelt, lijkt daarentegen wel afhankelijk te zijn van kenmerken in de opvoedingsomgeving.

De afsluitende sectie van het proefschrift bevat één hoofdstuk (hoofdstuk 8). Hierin staan de voornaamste empirische bevindingen en conclusies, worden de concepten cultuur en aanpassing aan de onderzoeksbevindingen gerelateerd, gaat het over de betrouwbaarheid en de validiteit van de onderzoeksmethoden en wordt aandacht besteed aan zaken als generaliseerbaarheid, wetenschappelijke en praktische relevantie, en aspecten die zijn blijven liggen in dit onderzoek. Alhoewel generalisaties vanuit de huidige onderzoeksgroep slechts beperkt mogelijk zijn, lijkt het Indonesische samenspel van veiligheid, moederlijke ondersteuning en omgevingskenmerken zowel universele psychologische processen als omgevings-afhankelijke mechanismen te bevatten. De huidige combinatie van antropologische en psychologische onderzoeksmethoden is een inspirerende en veelbelovende onderneming geweest bij het bestuderen van hechting 'in context'.

## Curriculum Vitae

Jolien Zevalkink (geboren 12 mei 1962 te Ruurlo) legde in 1980 het eindexamen VWO af aan het Baudartius College te Zutphen. Zij studeerde Ontwikkelingspsychologie (vanaf 1980) en Culturele Antropologie (vanaf 1982) aan de Katholieke Universiteit Nijmegen. In 1987 heeft zij 10 maanden stage gelopen en leeronderzoek gedaan in West Java, Indonesië, aan de Padjadjaran Universiteit te Bandung. Zij studeerde in 1989 met genoegen af in de Ontwikkelingspsychologie. Haar scriptie had betrekking op longitudinale relaties tussen competentieontwikkeling van meisjes en jongens over een leeftijdsperiode van 9 maanden tot 10 jaar en de sociale ondersteuning die opvoeders aan hun kinderen gaven. In 1991 studeerde zij af in de Sociale Antropologie met een scriptie die betrekking had op socialisatiepatronen van jonge kinderen in Sundanees-Indonesische gezinnen die hun kleuters wel en gezinnen die hun kleuters niet naar de kleuterschool lieten gaan.

In de periode 1990-1992 verbleef zij wederom in Indonesië waar zij promotieonderzoek verrichtte naar de samenhang tussen de veiligheid van de gehechtheidsrelatie tussen moeder en kind en variabelen in de opvoedingsomgeving. Na terugkomst in Nederland trad zij in October 1992 in dienst bij het door WVC geïnstigeerde INSTAPJE project dat gelokaliseerd was aan de Katholieke Universiteit Nijmegen. Voor dit interventieproject verrichtte zij onderzoek bij Surinaamse gezinnen met peuters. Dit onderzoek richtte zich op het verhogen van de kwaliteit van ondersteuning die de peuters van hun opvoeders kregen om de cognitieve en taalontwikkeling van de peuters te beïnvloeden. In oktober 1994 trad zij voor twee jaar in dienst bij de Katholieke Universiteit Nijmegen als Assistent in Opleiding om de gegevens van het promotieonderzoek te verwerken. Momenteel is zij freelance werkzaam en bereidt zij nieuwe onderzoeksactiviteiten voor.









Stellingen behorend bij het proefschrift  
**Attachment in Indonesia: The Mother-Child Relationship in Context**  
in het openbaar te verdedigen door Dina Johanna Zevalkink op  
donderdag 2 October 1997 te Nijmegen

1. Een typisch onveilige relatie tussen moeder en kind kenmerkt zich in Indonesië eerder door klamperig en boos gedrag dan door het vermijden van de opvoeder. Het ronddragen van kinderen in een draagdoek lijkt dit te bevorderen.
2. Iets meer dan de helft van de Indonesische moeders bouwt een veilige gehechtheidsrelatie met haar kind op. Deze bevinding wijkt niet positief of negatief af van het gemiddelde in andere landen.
3. Het in een draagdoek opgroeïend kind oefent sociale vaardigheden ten koste van motorische ontwikkeling en zelfstandigheid.
4. Meer inkomen lijkt tot een meer moderne --'westerse'-- opvoedingsstijl te leiden. Vasthouden aan traditionele opvattingen en gedragingen is voornamelijk te vinden in armere, laag opgeleide gezinnen. Dit betekent echter niet dat een rijkere Indonesiër zijn Indonesische identiteit verliest.
5. Verhogen van het onderwijsniveau levert niet alleen een positieve bijdrage aan de economische ontwikkeling van een land, maar kan ook de sociaal-emotionele ontwikkeling van opvoeders en kinderen ten goede komen.
6. Antropologen en reisbureau's hebben gemeen dat beiden Aziatische omgangsvormen romantiseren.
7. Participerende observatie is de kunst van het krabbelen van steekwoorden op bloknotjes terwijl men genoegzaam converseert.
8. Ontwikkelingspsychologen hebben de neiging om omgevingsfactoren te veronachtzamen. Dit kan liggen aan het feit dat zij deze factoren als vanzelfsprekend en onveranderlijk ervaren.
9. Het cultuurbegrip is een vuilnisvat. Net als het milieu zouden de sociale wetenschappen gebaat zijn bij het gescheiden inzamelen van afval.
10. Het principe van interdisciplinair onderzoek is mooier dan de universitaire werkelijkheid waarin dit soort onderzoek meestal argwanend bekeken wordt.





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